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TWENTY-SIXTH ANNUAL REPORT

OF THE

Board of Public Works

OF THE

CITY OF DETROIT. *Dept. of public works.*

SHOWING

THE WORK DONE

AND

Receipts and Expenditures for the Fiscal Year Ending
June 30th, 1900



Detroit:
The Richmond & Backus Co.
1900.

12.11.11

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MEMBERS OF BOARD OF PUBLIC WORKS

SINCE ORGANIZATION

The Board of Public Works was established by an Act of the State Legislature, approved April 29, 1873, and was organized for business March 1, of that year. The names of members and the years in which they served may be seen by the following table:

NAME	YEAR
Harvey King.....	1874, 1875.
Nicol Mitchell.....	1874, 1875, 1876, 1877.
Alexander Chapoton.....	1874, 1875, 1876, 1877, 1878. 1884, 1885, 1886, 1887.
Stanley G. Wight.....	1876.
William Purcell.....	1877, 1878, 1879.
Frederick Ruehle.....	1878, 1879, 1880, 1881.
William Langley*.....	1879, 1880, 1881, 1882, 1883, 1884. 1885, 1886, 1887, 1888, 1889, 1890.
Benj. Briscoe.....	1880, 1881, 1882, 1883.
John B. Stoutenburg.....	1882, 1883, 1884, 1885.
Thomas McGrath.....	1886, 1887, 1888, 1889.
James Hanley†.....	1888, 1889, 1890.
Michael J. Griffin‡.....	1890, 1891.
Jacob Guthard¶.....	1890, 1891, 1892, 1893, 1894, 1895, 1896.
John B. Mulliken**.....	1891.
John McVicar***.....	1891, 1892, 1893, 1894, 1895, 1896, 1897.
James Dean§.....	1891, 1892, 1893, 1894, 1895.
D. W. H. Moreland.....	1896, 1897, 1898, 1899.
Herman F. Kallman.....	1897, 1898, 1899, 1900.
James W. Millen.....	1898, 1899, 1900.
Marshall H. Godfrey.....	1900.

* Died in Chicago, June 27, 1890, while in office.

† Resigned October 21, 1890, to run for Sheriff.

‡ Resigned April 30, 1891, to attend to private business.

¶ Appointed to fill out W. H. Langley's unexpired term, and for full term from January, 1893.

** Appointed to fill out James Hanley's unexpired term.

*** Appointed to fill vacancy made by resignation of M. J. Griffin, and for full term from January, 1892.

§ Appointed to fill vacancy made by resignation of J. B. Mulliken, and for full term from January, 1892.

BOARD OF PUBLIC WORKS OFFICE, }
DETROIT, June 30, 1900. }

To the Honorable the Board of Public Works :

GENTLEMEN—I herewith submit a statement showing the receipts and expenditures of the Board in its various departments, as well as work done, during the fiscal year ending June 30, 1900.

Respectfully,

ROBERT Y. OGG,

Secretary.

TWENTY-SIXTH ANNUAL REPORT

OF THE

Board of Public Works

OF THE

CITY OF DETROIT

1899-1900



BOARD OF PUBLIC WORKS OFFICE, }
DETROIT, June 30, 1900. }

To the Honorable the Common Council :

GENTLEMEN—As required by the Act creating it, the Board of Public Works herewith submits its twenty-sixth annual report, covering the fiscal year ending June 30, 1900.

PAVING AND REPAVING.

Twenty Miles of Work and What it Cost.— Asphalt too High.

PAVING—what is best, most lasting and at the same time moderate in cost—continues a problem, not only to the Commissioners of the Board of Public Works, who devote their entire time to the work, but to students of municipal matters, who contribute their best thought to magazines devoted to city improvements. Experience was the teacher that largely governed the Board during the last fiscal year, and the Commissioners feel satisfied that they have done their part in keeping Detroit in the front rank as one of the best paved cities in the country. What had proved satisfactory in the past was continued, and no new innovations were indulged in, save the adoption of specifications for the use of asphalt blocks.



MIXING CONCRETE.

On July 1, 1900, Detroit could boast of 280 miles of paved streets, averaging up in amount and character with any city of her area and population in the union. Detroit's natural beauty, clean streets, broad and shady thoroughfares, appreciated so much by Detroiters themselves, made everything in the nature of improvements a subject discussed by everybody as a family

affair. Consequently much was said and printed about paving topics. Suggestions from property owners, members of the Common Council and Board of Estimates were always in order during the Board's preparation of the budget for funds for the year's work. Many were enthusiastic over some particular kind of pavement, each with arguments why his choice should be used to the exclusion of all other materials. What is best suited to Michigan's climate, cost and durability being considered, will continue to be the study of those to whom the care of our streets and alleys has been entrusted. Detroit is advancing in paving matters, and with



LAYING BRICK.

the old sand and plank foundations relegated to the rear for all time, the citizens who can recall the conditions of our streets ten years ago and compare them with those of today will be satisfied that the closing decade of the century marks rapid strides in the matter of paving and repaving. In 1890 Woodward, Grand River, Michigan and almost all the main thoroughfares leading to the center of

the city were cheap wooden pavements on poor foundations. The transformation scene is not to be credited to any one man or set of men. It is the net result of education on the part of city officials and of thought and suggestion from a hundred sources.

The Commissioners believe that cedar block, brick and asphalt will continue to be the standard pavements of Detroit, as long as contractors do not "get together," but simply give the people good work at a fair price. Cedar is the cheapest and will continue to be used on many residence streets and business thoroughfares outside of the half-mile circle. Brick is objected to on residence streets on account of the noise; but a fair amount of that material will be used on streets in the down-town district, not directly on the river front, for which granite block is considered preferable. Asphalt, laid properly, and at a fair price, within reason, will

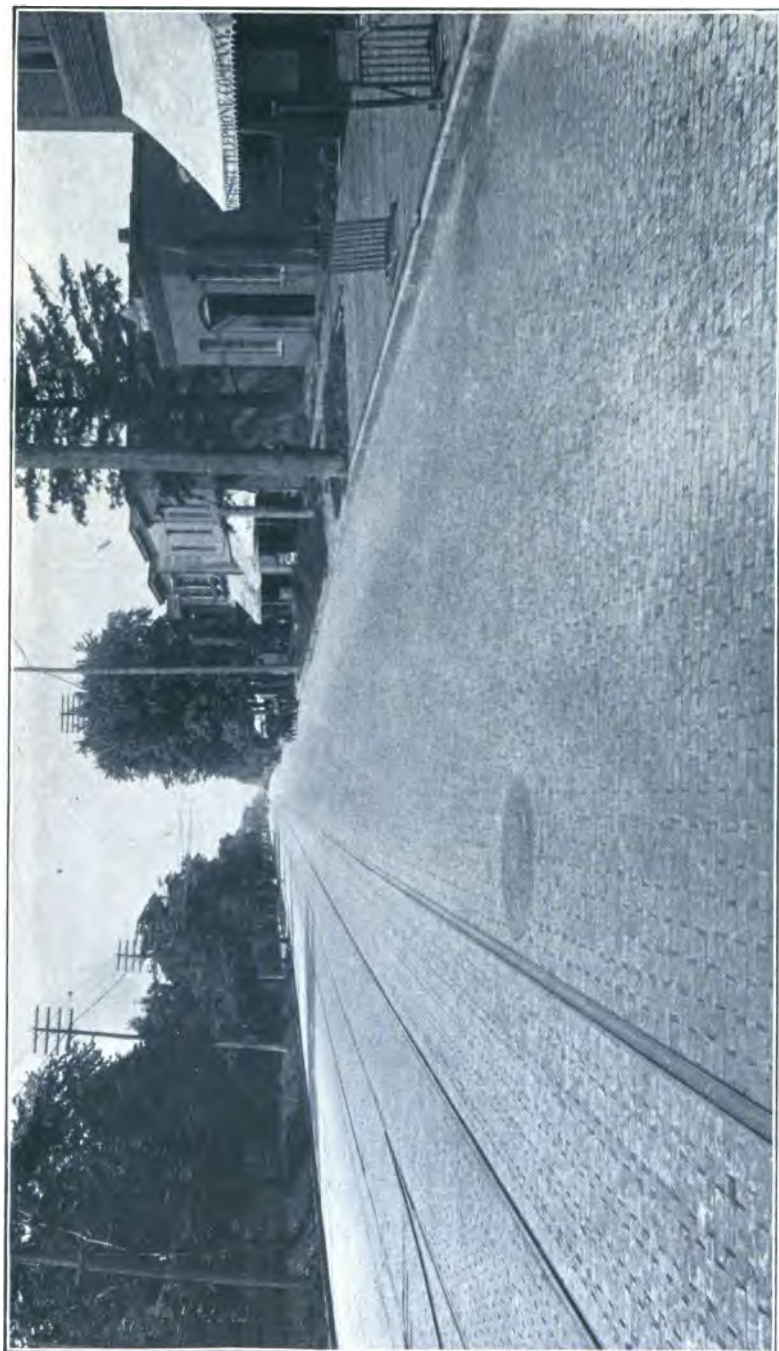
find favor with citizens generally and the Board as well. From prices received for two repaving jobs, there is no question in the minds of the Commissioners that sheet asphalt can be laid at a fair price—not higher than \$2.50 for new work—and still leave a fair margin of profit for the companies doing the work.

Much annoyance, loss of time and patience had been the experience of the Board for years past with irresponsible contractors—persons who would undertake the paving or repaving of streets with little or no regard for the time limit of completion and the inconvenience to property owners and business men by having thoroughfares unnecessarily torn up for many weeks at a time. While the specifications provided for penalties if work was not completed in the time agreed upon, past history showed that the Common Council invariably returned the money at the end of the paving season. As a remedy for the trouble, and in order that a contract might be regarded with some respect by the parties referred to, the Board abandoned personal bonds on all paving jobs, except small contracts for alley work, and insisted that surety bonds should be given. The new plan went into operation at the beginning of this season's work; and while objected to by some contractors, was considered by the majority of them as an innovation which was not only business-like, but one that would make less trouble for the Board and serve to instill into the minds of the irresponsible ones that a contract with the city was sacred.

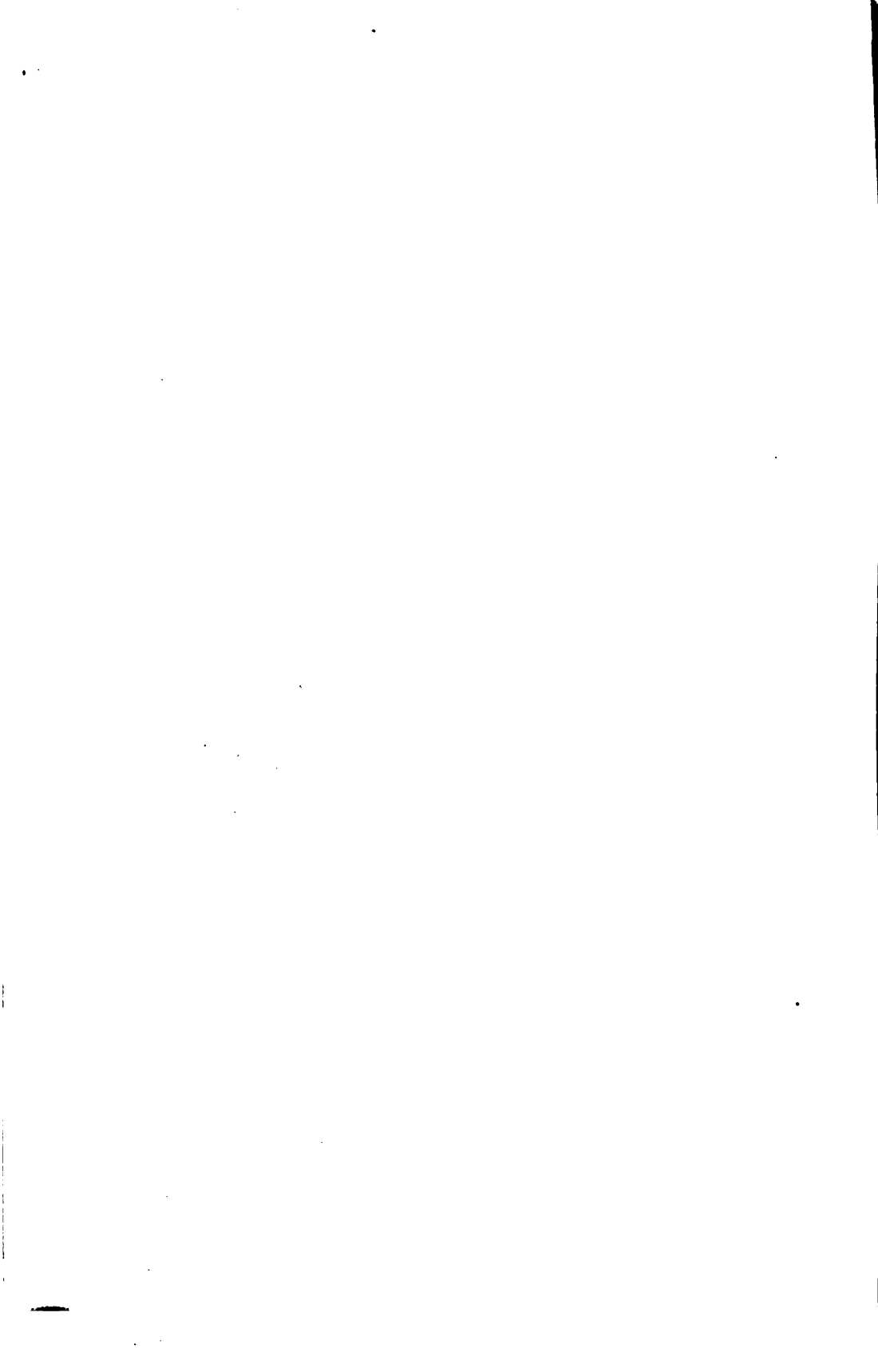
The Board found no reason to regret the experiment of abandoning guarantees, which was done on all pavements except asphalt, at the beginning of the fiscal year. The Commissioners impressed on the contractors the necessity of good work, which was followed up by close inspection on the part of the Board's agents. The old cry "I give a guarantee" was no longer



SETTING CURB.



FORT STREET WEST, NEAR CLARK AVENUE — PAVED WITH NELSONVILLE BRICK.



tolerated from the contractor who would occasionally give vent to his feelings, when attention would be drawn by the inspector or the Commissioners to some part of the specifications he was not living up to. An honest contractor will do honest work, guarantee or no

guarantee. However, the Board believes that the absence of guarantees on brick and cedar streets stands for better results.



LAYING ASPHALT.

The question of stone curbing came in for its share of discussion during the paving season. The specifications as originally adopted contained Granite, Medina, North River Blue, Berea and Woolmith.

An amendment was made, however, admitting Elyria,

and later in the season Berea was stricken out entirely. Medina continued to be the favorite, as being the best adapted for street work, and a stone that had given general satisfaction. When the specifications for 1900 were adopted, the length of the stones was made "not less than $3\frac{1}{2}$ feet," instead of 4 feet, which had been the rule for years. The change gave a dozen quarries in the Medina district an opportunity to compete. Berea was again inserted, but with the distinct understanding with the Common Council, that it should be used only on streets that were being repaved, where the material was necessary to replace old curb rejected by the inspectors. Of the stone used Medina curb is recognized by contractors as the best and most lasting of hard curbs (barring granite), and all new work being set on concrete, a better finish was given to the streets, and the zigzag lines of soft curb stone on sand will have soon passed into history with the sand and plank foundations of other days.

The good work of abandoning the old cobblestone alleys in the down-town district was continued, and a score of those unsightly and unsanitary thoroughfares were replaced with vitrified brick on concrete foundation. This order of things, inaugurated a few years ago, had met with so much favor that petitions were

presented to the Board for the paving and repaving of alleys in the residence district, as far out as the mile-and-a-half circle. The price averaged \$1.80 per square yard.

Michigan still continued to produce sufficient cedar to make that character of pavement the leader in her metropolis, and while critics denounced it as unsanitary, the fact remained that on residence streets, especially in the outlying districts, it was still the popular pavement. Although the demand for cedar for commercial pur-

poses, especially in the western states, was very great, it did not prevent Detroit from securing reasonable figures for both paving and repaving, running as low as \$1.37 and \$1.13 per square yard, with the average at \$1.52 and \$1.18. Thirty-four streets were paved with cedar and twenty-seven repaved with cedar, all on concrete foundation.



MAKING GRADE.

The brick battle of 1898-99, inaugurated by the Common

Council and certain brick dealers over the naming of the material by the Board of Public Works, in which the supreme court decided that the Commissioners were unquestionably entitled to that right, made brick paving easy as compared with former years. The Board of Estimates allowed close to \$100,000 for brick paving on the following streets: Russell, Wilkins to Forest, Bagley, Cass to Park; Cass, Grand River to Ledyard; Farmer, Randolph to Monroe; Forest, Woodward to Cass; Fort, Clark to Artillery; Front, First to Third; Hastings, Jefferson to Franklin and State, Griswold to Rowland. All were completed except Bagley avenue, which was delayed on account of the failure of the property owners to agree upon the question of widening, but the street is well under way as the fiscal year closes. No change was made in the kinds of brick mentioned in the advertisements. Nelsonville, Metropolitan, Athens, Union Paver and Buckeye were continued until the opening of the present season, when Bolen Brown Granite

was added to the list. The advent of the new brick brought about lower prices in the first and second batches of bids, but on the third bidding—Elizabeth street—the price ran up to \$1.90 per yard, which the Board rejected and ordered the street readvertised.

The paving tables which follow this chapter, so far as sheet asphalt is concerned, are blank. Not a yard of that material was laid during the past twelve months. To the attempt to keep the price away up near the three-dollar mark must be attributed the main reason for no asphalt being laid. An asphalt claim of \$276,000 was staked out (the majority of which was in the central district) and presented to the Estimators, which was promptly reduced to \$30,150; and even on that meager amount the Board advertised seven times for the four streets allowed, with the hope of securing a fair price, but to no avail. Property owners on Erskine street, from Woodward avenue to John R. street, and on Eliot street between the same points, became disgusted with the high prices, and informed the Board that they would be satisfied with cedar blocks, although the two streets were placed in the estimates for sheet asphalt. The present Board determined that asphalt pavement should be given to the city at reasonable prices, or there would be no pavement of that kind laid. Accordingly, the question of asphalt blocks was discussed and specifications presented to the Common Council and adopted. Three streets were allowed by the estimators for that material, which had not before been tried in Detroit. Another readvertising of John R. street, Cross street to Adelaide street and of Canfield avenue, Woodward avenue to Second Avenue, in which sheet asphalt and block asphalt were mentioned, brought the former down to \$2.07 per square yard. This price was accepted by the Board and the Common Council, and, as the fiscal year closes, both streets are under way.

The failure to secure a fair price for asphalt, and no work with that material being done, the total miles of paving and repaving was less than for the previous fiscal year, which was 21.34. The work for the year just closed shows 19.30 miles, of which there were 8.34 of new work, of 10.96 of repaving, divided among the different materials as follows: Cedar, 16.11 miles; Brick, 2.53; Granite, .14 miles; Alleys, (vitrified brick) .52 miles.

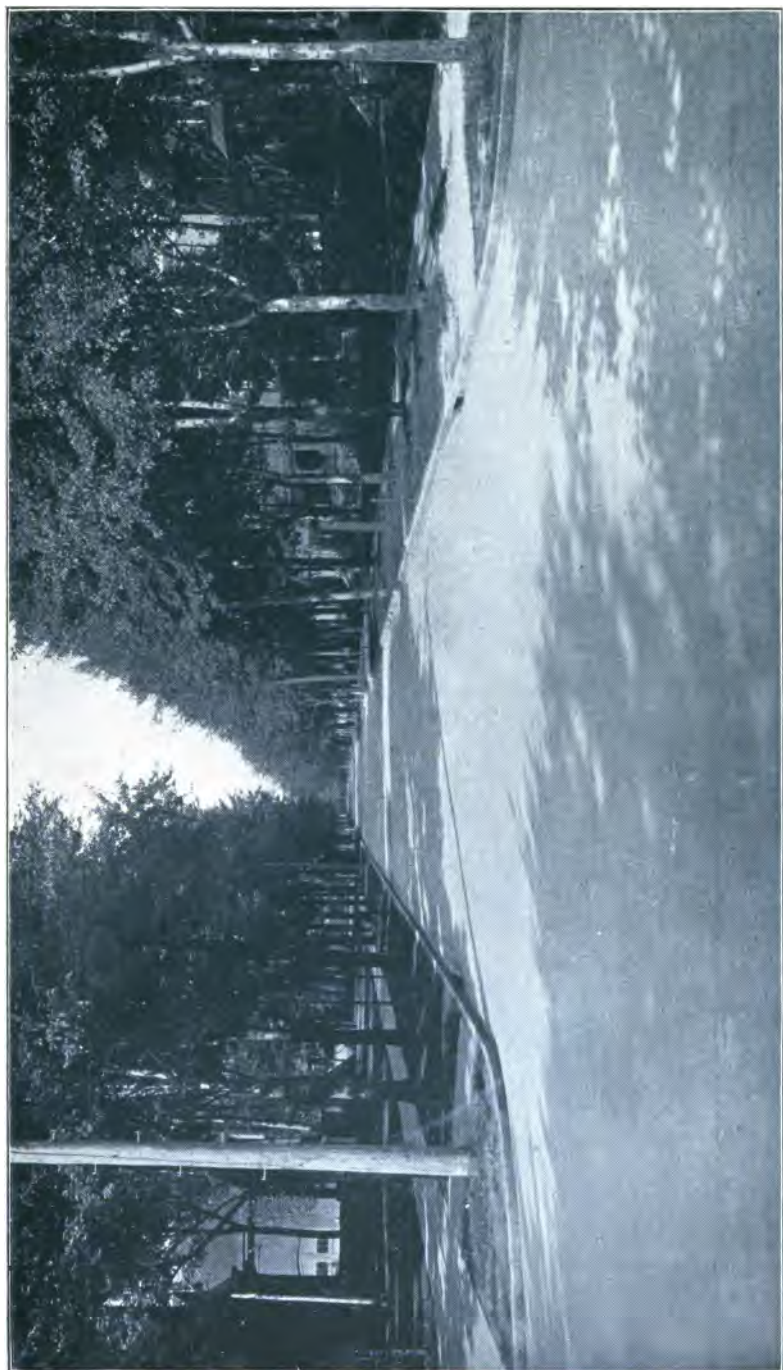
The history of the previous year was repeated in regard to cedar block pavement, there being 16.01 miles laid out of a total of 19.20 miles for all kinds of material. The price was a trifle in excess of the previous year, accounted for by the increased price of cedar; the contract price to the city being \$8.29 per cord, which raised to \$8.43, when the bids were opened last January for the supply for the present season. There was a little or no difference in the price of brick paving, as compared with last year.

The Board of Estimates allowed the following for repaving for the fiscal year: Four streets with asphalt, estimated at \$30,150; nine streets with brick, estimated at \$99,144; twenty-five streets with cedar block, estimated at \$177,034; a total of 38 streets to cost \$306,328. The work was all carried out according to programme, except that two of the streets allowed for asphalt were paved with cedar on concrete, owing to the high price asked for the smooth material. The estimators last spring dealt more liberally with the Board, allowing \$334,885 for repaving for the coming fiscal year, divided as follows: One street sheet asphalt, \$19,880; three streets with block asphalt, \$24,126; six streets with brick, \$38,689; one street with granite, \$5,347; 32 streets with cedar block, \$246,843. The last month of the fiscal year showed almost all repaving allowed for the new year well under way, a condition of affairs appreciated by workmen, contractors and the public alike.

THE REPAVING FUND

The expenditures from the Repaving Fund for the fiscal year 1899-1900 were as follows:

St. Antoine street, Rowena to Canfield, third and final estimate.....	\$ 2,895 09
Canfield avenue, McDougall to Hastings, third to final estimate.....	12,881 21
Twelfth street, Michigan to Bagg, first to final estimate.....	7,895 84
Twelfth street, Railroad to 500 feet North, first to final estimate.....	1,888 38
Twenty-fourth street, Dix to Baker, first and final estimate.....	1,026 30
St. Aubin avenue, Canfield to Harper, first to final estimate.....	19,870 95
Larned street, Orleans to Dequindre, first and final estimate.....	1,060 11
Russell street, Wilkins to Forest, first to final estimate.....	26,400 65
State street, Griswold to Rowland, first to final estimate.....	1,458 93
Atwater street, Chene to Jos. Campau, first to final estimate.....	4,458 54



CANFIELD AVENUE, NEAR CASS AVENUE — PAVED WITH TRINIDAD LAKE SHEET ASPHALT.

Farmer street, Randolph to Monroe, first and final estimate.....	2,595 75
Eighteenth street, Grand River to McGraw, first to final estimate.....	8,884 23
Second street, Michigan to Howard, first and final estimate.....	2,518 16
McKinstry street, River to Fort, first to final estimate.....	8,397 86
Humbolt avenue, Michigan to Butternut, first to final estimate.....	3,755 07
Jay street, Dequindre to St. Aubin, first and final estimate.....	2,088 66
Lincoln avenue, Grand River to Alexandrine, first to final estimate.....	6,939 67
National avenue, Baggs to Grand River, first to final estimate.....	7,862 49
Baker street, Seventh to Twelfth, first and final estimate.....	6,763 26
Wayne street, Jefferson to Woodbridge, first and final estimate.....	992 86
Cass avenue, Grand River to Ledyard, first to final estimate.....	14,125 37
Brainard street, Third to Greenwood, first and final estimate.....	2,370 17
Gratiot avenue, McDougall to Bellevue, first to final estimate.....	16,760 69
Third street, Merrick to Holden, first to final estimate.....	6,559 03
Fort street, Clark to Artillery, first to final estimate.....	34,486 69
Ferry avenue, Russell to St. Aubin, first to final estimate.....	6,792 77
Forest avenue, Woodward to Cass, first to final estimate.....	3,051 17
Howard street, Third to Fifth, first and final estimate.....	2,949 65
Trumbull avenue, Michigan to Howard, first to final estimate.....	9,754 18
Hastings street, Jefferson to Franklin, first to final estimate.....	2,107 54
Front street, First to Third, first to final estimate.....	3,598 84
Eliot street, Woodward to John R, first to final estimate.....	2,226 82
Ersline street, Woodward to John R, first to final estimate.....	2,248 51
Boston boulevard, Woodward to Brush, first estimate.....	1,000 00
Griswold street, n. e. cor. Grand River, first and final estimate.....	687 00
Canfield avenue, McDougall to Hastings, first estimate.....	2,500 00
Holden avenue, Woodward to Cass, first and final estimate.....	2,220 07
Orleans street, Gratiot to Alfred, first estimate.....	2,000 00
Brick.....	324 45
Extras on Contracts.....	200 77
Unloading granite blocks.....	64 51
Granite Paving Blocks.....	6,099 30
Labor, dressing stone.....	3,351 86
Pay rolls, inspector's.....	9,199 50
Freight, tolls, etc., on granite blocks.....	1,489 20
Hauling stone, etc., from streets.....	146 99
Printing and advertising.....	49 12
	<hr/>
	\$ 266,088 21

On the following pages are tables showing the paving and repaving accomplished during the fiscal year:

STREETS PAVED DURING

STREET OR AVENUE PAVED	Contractor	Style of Pavement	Length, Feet	Width, Feet	Excava- tion, Cubic Yards
Seyburn, from Champlain to Agnes.....	City St. Improv'nt Co.	Cedar on concre.	655 20	28	1,251
Bowen, from Jefferson to Kercheval.....	Geo. E. Currie.....	"	1,622 69	26	2,891
Lothrop, from Woodward to Third.....	Geo. E. Currie.....	"	1,765 00	26	2,711
Seventeenth, from Buchanan to Warren.....	City St. Improv'nt Co.	"	1,650 09	30	2,635
Marston, from Woodward to (proposed) Brush.....	Geo. E. Currie.....	"	1,331 75	26	1,663
Meldrum, from Mack to Gratiot.....	Jas. Grant.....	"	1,716 10	26	2,393
Humboldt, from Warren to Grand River.....	Julius Porath.....	"	1,196 41	26	1,490
Theodore, from Hastings to Russell.....	Jas. Grant.....	"	1,178 41	26	1,905
Hecla, from Piquette to Milwaukee.....	Henry Merdian.....	"	831 43	26	1,052
Brewster, from Rivard to Russell.....	Henry Merdian.....	"	374 80	26	434
Alfred, from Rivard to Russell.....	Henry Merdian.....	"	374 80	26	486
Harper, from Brush to Hastings.....	Jas. Grant.....	"	1,466 32	26	1,672
Mott, from Woodward to Brush.....	Archibald Grant.....	"	1,720 00	26	2,049
Orleans, from Wilkins to Erskine.....	Henry Merdian.....	"	351 10	24	723
Eighteenth, from Myrtle to Buchanan.....	Wm. Lappin.....	"	2,356 00	25	4,505
Scotten, from Buchanan to Warren.....	Jas. Grant.....	"	2,587 19	26	4,854
Larned, from McDougall to Elmwood.....	Geo. E. Currie.....	"	695 50	30	989
Milwaukee, from St. Aubin to the Boulevard.....	A. C. Lloyd.....	"	2,458 30	30	3,204
Vinewood, from Fort to Porter.....	Peter Mahoney.....	"	1,717 88	26	2,860
Hudson, from Fourteenth to Grand River.....	Julius Porath.....	"	2,134 86	26	2,977
Clay ave., from Russell to D. G. H. & M. R. R.....	Wm. Lappin.....	"	1,074 39	26	1,799
Clay ave., from D. G. H. & M. R. R. to D. & B. C. R. R.....	Wm. Lappin.....	"	611 89	26	1,026
Canfield, from Greenwood to Trumbull.....	Geo. E. Currie.....	"	1,335 83	26	2,158
Beaufait, from Mack to Gratiot.....	Jas. Grant.....	"	2,018 82	26	2,700
Poplar, from Thirteenth to Wabash.....	Thos. J. Kennedy.....	"	373 50	26	517
Sidney, from Woodward to Oakland.....	Archibald Grant.....	"	2,631 90	26	3,447
Lafayette from Twenty-fourth to the Boulevard.....	Julius Porath.....	"	700 97	30	1,114
Moran, from Boulevard to (proposed) Medbury.....	Jno. A. Mercier.....	"	308 29	26	211
St. Antoine, from Milwaukee to the Boulevard.....	Wm. Lappin.....	"	378 24	30	415
Rowena, from Brush to St. Antoine.....	Henry Frederick.....	"	814 10	*30	804
Pallister, from Woodward to Hamilton Boulevard.....	A. C. Lloyd.....	"	2,627 77	26	3,577
Bellevue, from Berlin to Mack.....	Jas. Grant.....	"	1,118 23	26	1,688
Oakland, from the Boulevard to Bethune.....	Henry Merdian.....	"	737 40	26	768
Frank, from Greenwood to Brooklyn.....	Julius Porath.....	"	656 00	26	1,059
			43,571 26		64,027

8.25 miles.
\$1.52 average gross cost per sq. yd.
.99 " " " " " " " " " " " "

a—Includes 62.55 feet of asphalt,
*—Less tracks, etc.

THE FISCAL YEAR 1899-1900

Curbstone, Lineal Feet	Paving, Square Yards	Estimated Inspection and Advertis- ing	Cost of Paving Assessm't District	Cost of Paving Intersec- tions	Total Cost	Contract Confirmed	Pavement Accepted
1,298 40	2,040 12	\$ 102 00	\$2,705 98	\$ 113 67	\$ 2,921 65	May 16, 1899	July 11, 1899
3,193 20	4,693 74	181 00	6,576 08	291 39	7,048 47	May 16, 1899	July 11, 1899
3,410 00	5,103 66	194 00	6,809 61	574 64	7,578 25	June 6, 1899	July 18, 1899
3,080 17	5,506 77	206 00	6,849 21	987 16	8,042 37	June 20, 1899	Sept. 26, 1899
2,643 50	3,909 83	158 00	5,525 50	167 40	5,850 90	June 20, 1899	Aug. 29, 1899
3,212 18	4,973 02	190 00	6,164 23	679 42	7,033 65	June 20, 1899	Sept. 5, 1899
2,243 71	3,499 89	145 00	4,657 42	397 60	5,200 02	July 25, 1899	Sept. 12, 1899
2,238 00	3,410 78	142 00	4,825 36	868 77	5,336 13	July 25, 1899	Sept. 12, 1899
1,642 82	2,403 63	112 00	3,246 74	142 00	3,500 74	Aug. 1, 1899	Oct. 3, 1899
737 60	1,064 47	73 00	1,545 61	62 08	1,680 64	Aug. 1, 1899	Oct. 3, 1899
737 60	1,064 47	73 00	1,561 21	62 08	1,696 24	Aug. 8, 1899	Oct. 3, 1899
2,773 63	4,245 56	168 00	5,665 21	473 25	6,306 46	Aug. 22, 1899	Sept. 26, 1899
3,440 00	a5,081 44	191 00	7,037 26	210 75	7,439 01	Aug. 22, 1899	Oct. 10, 1899
690 20	987 99	68 00	1,377 85	45 95	1,491 80	Aug. 22, 1899	Oct. 10, 1899
4,524 00	7,336 26	260 00	10,465 89	708 22	11,434 11	Aug. 22, 1899	Oct. 10, 1899
4,875 80	7,480 61	265 00	10,094 24	926 35	11,285 59	Aug. 22, 1899	Oct. 24, 1899
1,326 94	2,321 81	109 00	3,197 93	303 39	3,610 32	Aug. 29, 1899	Oct. 17, 1899
4,571 71	8,205 68	287 00	10,165 75	1,187 91	11,640 66	Aug. 29, 1899	Oct. 31, 1899
3,287 81	4,976 46	190 00	7,784 40	194 80	8,169 20	Aug. 29, 1899	Nov. 14, 1899
3,815 25	6,200 59	227 00	7,671 84	1,639 37	9,538 21	Aug. 29, 1899	Oct. 31, 1899
2,032 77	3,103 77	133 00	4,186 14	387 72	4,706 86	Aug. 29, 1899	Oct. 31, 1899
1,171 35	1,767 67	93 00	2,456 56	171 18	2,720 74	Aug. 29, 1899	Nov. 8, 1899
2,349 00	3,875 48	156 00	4,956 08	1,112 70	6,224 78	Sept. 5, 1899	Nov. 8, 1899
3,853 36	5,847 54	216 00	7,601 03	643 53	8,460 56	Sept. 5, 1899	Nov. 14, 1899
662 84	1,080 71	73 00	1,547 12	216 09	1,836 21	Sept. 5, 1899	Nov. 28, 1899
5,007 80	a7,665 81	270 00	10,529 46	1,205 29	12,004 75	Sept. 5, 1899	Nov. 8, 1899
1,292 43	2,338 27	111 00	3,030 42	443 23	3,544 65	Sept. 12, 1899	Nov. 8, 1899
596 58	890 62	67 00	1,292 20	35 09	1,394 29	Sept. 12, 1899	Oct. 24, 1899
680 48	1,262 52	78 00	1,678 14	204 92	1,961 06	Sept. 19, 1899	Nov. 14, 1899
1,443 32	2,065 73	103 00	2,972 95	430 99	3,506 94	Sept. 19, 1899	Nov. 14, 1899
5,095 54	a7,658 65	270 00	10,523 96	1,062 39	11,856 35	Sept. 19, 1899	Nov. 28, 1899
2,188 46	3,232 27	137 00	4,604 05	165 52	4,906 57	Sept. 26, 1899	Nov. 28, 1899
1,336 80	2,146 43	104 00	2,965 01	432 80	3,501 81	Oct. 3, 1899	Nov. 28, 1899
1,164 00	1,974 37	119 00	2,529 65	598 95	3,225 55	Jan. 2, 1900	June 19, 1900
82,567 25	129,356 62	\$5,271 00	\$174,800 09	\$16,646 50	\$196,695 54		

STREETS REPAVED DURING

STREET OR AVENUE	Contractor	Style of Pavement	Length Feet	Width, Feet	New Curb Lineal Feet
Canfield, from Hastings to Mc-Dougall.....	John A. Mercier.....	Cedar on concr'te	5,610 40	28	1,966 60
Howard from Third to Fifth.....	Thos. J. Kennedy.....	"	709 20	30	9 10
Brainard, from Third to Greenwood.....	City Street Im'p't Co..	"	740 00	24	119 80
Larned, from Orleans to Dequindre.....	James Grant.....	"	275 00	30	.....
Twenty-fourth from Baker to tracks in Dix.....	Henry Frederick.....	"	345 00	*28	171 70
Twelfth, from Michigan to tracks in Bagg.....	Thos. J. Kennedy.....	"	1,974 60	25	.....
National, from Bagg to Grand River.....	Julius Porath.....	"	2,351 30	26	428 60
Baker, from Seventh to Twelfth.....	Lennane Bros.....	"	1,985 40	a36	1,009 70
St. Aubin, from Canfield to Harper.....	Geo. E. Currie.....	"	5,025 00	30	3,530 30
Second from Howard to Porter.....	Julius Porath.....	"	630 40	28	305 20
McKinistry, from River to Fort.....	John A. Mercier.....	"	1,868 70	36	556 00
Eighteenth, from Grand River to McGraw.....	Thos. J. Kennedy.....	"	2,297 60	28	.....
Lincoln, from Grand River to Alexandrine.....	Geo. E. Currie.....	"	1,752 50	30	592 80
Jay, from Railroads to St. Aubin.....	James Grant.....	"	645 12	26	3 00
Humboldt, from Michigan to Butternut.....	Henry Frederick.....	"	1,081 70	26	780 90
Twelfth, from Railroads to 590 ft. N.....	James Grant.....	"	592 00	26	129 30
Gratiot, from McDougall to Mt. Elliott.....	Geo. E. Currie.....	"	3,090 16	a46	185 10
Gratiot from Mt. Elliott to Bellevue.....	Geo. E. Currie.....	"	1,439 00	a46	289 40
Ferry from Russell to St. Aubin.....	A. C. Lloyd.....	"	1,839 40	*30	.....
Third, from Merrick to Holden.....	James Grant.....	"	2,045 50	*32	343 40
Trumbull, from Howard to Michigan.....	Geo. E. Currie.....	"	2,160 10	*40	739 30
Erskine, from Woodward to John R.....	Henry Merdian.....	"	610 50	26	107 20
Eliot, from Woodward to John R.....	Henry Merdian.....	"	608 00	26	95 10
Wayne, from Woodward to Jefferson.....	John A. Mercier.....	Cedar & Brick on Concrete	207 80	32	199 40
Holden from Woodward to Cass.....	Geo. E. Currie.....	Cedar on concr'te	525 00	30	238 70
Orleans, from Gratiot to Alfred.....	Henry Merdian Co.....	"	1,074 50	26	591 80
			41,511 88		12,392 40

7.86 miles—

\$1.18 average gross cost per square yard.

.98 average net cost per square yard.

*—Less single tracks.

a—Less double tracks.

b—Includes \$1,119.69 (widening.)

FISCAL YEAR ENDING 1899-1900.

Paving Square Yards Final Measure- ment	Contract Price	Cost of Additional Paving	Total Cost	Paid on Account	Contract Confirmed	Pavement Accepted
17,498 07	\$21,455 05	\$.....	\$20,721 21	All Paid	May 2, 1899	July 5, 1899
2,378 90	2,841 19	8 46	2,949 65	"	May 23, 1899	July 18, 1899
1,976 77	2,545 28	.....	2,370 17	"	June 6, 1899	Aug. 22, 1899
916 66	1,245 00	.....	1,060 11	"	June 6, 1899	July 18, 1899
800 00	1,040 58	.....	1,026 30	"	June 6, 1899	July 11, 1899
5,505 79	7,984 52	.....	7,695 84	"	June 6, 1899	July 25, 1899
6,814 81	8,276 56	.....	7,862 49	"	June 20, 1899	Aug. 22, 1899
5,441 00	7,216 78	.....	6,763 26	"	June 20, 1899	Aug. 8, 1899
16,767 55	20,364 22	.....	19,670 95	"	June 20, 1899	Aug. 16, 1899
1,972 50	2,540 34	.....	2,518 16	"	June 20, 1899	Aug. 1, 1899
7,592 00	8,781 47	.....	8,397 86	"	June 20, 1899	Aug. 22, 1899
7,157 42	8 388 81	.....	8,384 23	"	June 20, 1899	Aug. 22, 1899
5,852 93	7,149 46	.....	6,939 67	"	June 20, 1899	Sept. 5, 1899
1,863 68	2,248 58	.....	2,088 66	"	June 27, 1899	Aug. 1, 1899
3,129 68	4,019 43	.....	3,755 07	"	June 27, 1899	Aug. 22, 1899
1,710 22	2,073 59	.....	1,833 38	"	June 27, 1899	Sept. 5 1899
9,644 43	b 12,705 10	.....	b12,269 27	"	July 25, 1899	Sept. 19, 1899
4,945 61	5,872 50	.....	5,639 11	"	July 25, 1899	Sept. 19, 1899
6,024 70	7,317 48	.....	6,792 77	"	July 25, 1899	Sept. 19, 1899
6,123 77	7,203 88	.....	6,559 03	"	Aug. 1, 1899	Oct. 24, 1899
8,599 61	10,151 25	.....	9,754 18	"	Aug. 29, 1899	Oct. 24, 1899
1,763 67	2,486 43	.....	2,248 51	"	Sept. 19, 1899	Nov. 28, 1899
1,761 45	2,461 62	.....	2,226 82	"	Sept. 19, 1899	Nov. 28, 1899
(C. 692 09) (B. 51 18)	997 08	.....	992 86	"	July 25, 1899	Aug. 22, 1899
1,833 99	2,233 03	.....	2,220 07	"	May 8 1900	June 19, 1900
3,118 14	4,157 57	54 72	4,212 29	"	May 8, 1900	June 26, 1900
131,941 67	163,656 75	63 18	157,051 92			

STREETS REPAVED DURING FISCAL

STREET OR AVENUE	Contractor	Style of Pavement	Length Feet	Width, Feet	New Curb Lineal Feet
Russell, from Wilkins to Forest....	Archibald Grant.....	Brick on concrete	4,438 70	28	2,062 60
State, from Rowland to Griswold..	Liphardt & Winterhalter...	"	169 70	a30	88 70
Atwater, from Chene to Jos. Campau.....	Wm. Lappin	"	981 00	*30	398 70
Cass, from Grand River to Led-yard.....	Sheehan & Co.....	"	2,203 00	*35	1,318 70
Forest, from Woodward to Cass...	Julius Porath.....	"	699 50	*26	312 80
Farmer, from Randolph to Monroe.....	Archibald Grant.....	"	408 00	*30	736 30
Fort, from Clark to Artillery.....	Lennane Bros.....	"	4,178 80	a60	.....
Front, from First to Second.....	Thos. J. Kennedy.....	"	370 00	31½	.....
			13,398 70		4,917 80

2.53 miles—

\$1.64 average gross cost per square yard.

\$1.11 average net cost per square yard.

a—Less double tracks.

*—Less single tracks.

w—Includes widening 8 feet on N. side.

s—Square yards paid contractor by city for Detroit Citizens Street Railway.

r—Includes \$120.53 paid contractor by city and charged Detroit Citizens Street Railway.

Front, from First to Third.....	Thos. J. Kennedy.....	Granite.....	310 00	31½	.....
Hastings, from Franklin to Jefferson.....	Geo. E. Currie	" and Asphalt..	450 50	30	878 80
			760 50		878 80

YEAR ENDING 1899-1900.—Continued.

Paving Square Yards Final Measure- ment	Contract Price	Cost of Additional Paving	Total Cost	Paid on Account	Contract Confirmed	Pavement Accepted
15,644 52	26,587 36	.....	26,400 65	"	May 23, 1899	Aug. 29, 1899
776 17	1,054 61	399 32	w 1,453 93	"	May 31, 1899	Aug. 1, 1899
2,667 54	4,650 60	.....	4,458 54	"	June 20, 1899	Aug. 22, 1899
8,339 32	14,095 58	29 79	14,125 37	"	June 27, 1899	Oct. 31, 1899
(B1,771 83) (A. 28 21)	3,045 19	5 98	3,051 17	"	July 25, 1899	Dec. 5, 1899
1,285 11	2,402 31	193 44	2,595 75	"	July 25, 1899	Aug. 29, 1899
s 87 15 22,210 41	34,523 57	... ..	r 34,486 69	"	Aug. 1, 1899	Nov. 28, 1899
1,338 72	2,000 00	.....	2,405 88	"	Sept. 5, 1899	Jan. 16, 1900
54,143 98	88,359 22	628 53	88,977 98			

1,035 00	\$1,691 63	.....	\$1,192 96	All Paid.	Sept. 5, 1899	Jan. 16, 1900
(G1,577 85) (A. 74 25)	2,046 94	\$60 30	2,107 24	"	Sept. 5, 1899	Nov. 14, 1899
2,737 10	\$3,738 57	\$60 30	\$3,300 20			

.14 miles.
 \$1.20 average gross cost per sq. yd. } Granite furnished by City.
 80 " " " " " " }

ALLEYS PAVED DURING THE

BOUNDARIES	Contractor	Style of Pavement	Length, Feet	Width, Feet	Excavation, Cubic Yards
Alleys, E. of 20th, bet. Rose St. and M. C. R. R.....	Liphardt & Winterhalter.....	Brick on Concr.	483 80	20	431

ALLEYS REPAVED DURING THE

BOUNDARIES	Contractor	Style of Pavement	Length, Feet	Width, Feet	Excavation, Cubic Yards
Brush, Beaubien, Fort and Champlain	Liphardt & Winterhalter.....	Brick on Concr.	296	20	190
First, Cass, Howard and Abbott...	" "	"	365	20	230
First, Cass, Larned and Congress..	" "	"	351 10	20	221
Washington, Rowland, State and Grand River.....	" "	"	365 60	20	286
Griswold, Woodward, Grand River and Clifford.....	" "	"	326 40	20	207
Woodward, Barclay, Wilcox and John R.....	" "	"	334 50	20	210
Griswold, Woodward, Jefferson and Larned.....	" "	"	278	20	156 33
			2,316 60		1,440 33

FISCAL YEAR 1899 - 1900

Paving, Square Yards	Estimated Inspection and Advertis- ing	Cost of Paving Assessm't District	Cost of Paving Intersec- tions	Total Cost	Contract Confirmed	Pavement Accepted
1,017 68	\$76 00	\$1,720 69	\$161 34	\$1,958 08	July 18, 1899	June 12, 1900

FISCAL YEAR 1899 - 1900

Paving, Square Yards	Estimated Inspection and Advertis- ing	Cost of Paving Assessm't District	Cost of Paving Intersec- tions	Total Cost	Contract Confirmed	Pavement Accepted
626 71	.....	\$1,134 17	.....	\$1,134 17	June 27, 1899	Aug. 8, 1899
770 80	\$ 71 00	1,392 46	\$ 88 43	1,551 89	June 27 1899	Aug. 22, 1899
758 29	.....	1,395 95	.....	1,395 95	June 27, 1899	Aug. 22, 1899
781 94	.....	1,482 12	.....	1,482 12	June 27, 1899	Aug. 29, 1899
605 17	65 00	1,022 34	55 85	1,143 19	June 27, 1899	Aug. 22, 1899
669 70	67 00	1,084 76	151 10	1,302 86	Aug. 29, 1899	June 12, 1900
440 73	56 27	701 45	49 34	807 06	Sept. 5, 1899	Dec. 12, 1899
4,653 14	\$259 27	\$8,213 25	\$344 72	\$8,817 24		

THE YEAR'S PAVING AND COST

Following is a summary of the amount of paving and repaving accomplished during the fiscal year, showing the mileage of each kind of material laid and the grand total. The second table gives the gross and net cost per square yard and makes a comparison with the prices of the preceding year :

Miles of Work

	Miles
Cedar on concrete (paving).....	8.25
Cedar on concrete (repaving).....	7.86
Brick on concrete (repaving).....	2.53
Granite on concrete (repaving).....	.14
Brick on concrete, alleys (paving).....	.09
Brick on concrete, alleys (repaving).....	.43
Total.....	19.30

Cost of Work

	1898-1899		1899-1900	
	Gross	Net	Gross	Net
Cedar on concrete (paving)	\$1.41	\$.90	\$1.52	\$.99
Cedar on concrete (repaving)	1.13	.88	1.18	.98
Asphalt on concrete (paving)....	1.96	1.59	—	—
Asphalt on concrete (repaving) ..	2.07	1.78	—	—
Brick on concrete (repaving).....	1.54	1.23	1.64	1.11

TOTAL PAVING IN CITY TO JULY 1, 1900

	Lineal Feet	Miles	City Square Yards	Street Railways Square Yards
Cedar on concrete.....	516,431 33	97 80886	1,575,926 01	285,576 22
Cedar on plank.....	278,012 24	52 65383	809,014 92	.....
Cedar on sand.....	277,857 69	52 62456	819,401 36	11,388 04
Cedar on sand, stone gutters.....	73,479 33	13 91654	225,270 22	.....
Brick on concrete.....	124,562 47	23 59188	488,104 60	140,898 69
Asphalt on concrete.....	113,800 32	21 55309	477,604 92	25,791 75
Granite on concrete.....	9,907 50	1 87642	25,540 77	15,245 00
Cobble on concrete.....	5,969 90	1 18935	21,217 73	.....
Medina on concrete	6,412 05	1 21440	22,843 67	1,660 00
Stone on sand.....	5,170 76	0 97981	17,269 88	1,116 66
Silica Barytic.....	1,068 10	0 20040	3,147 19	.....
Macadam	3,843 74	0 72798	10,661 91	.....
Total.....	1,416,535 43	263 28322	4,466,003 18	481,684 36

Boulevard paving, about 12 miles of Macadam, not included in above.

CEDAR BLOCK RESURFACING

The paving season proper, which closed before the end of the calendar year, showed almost double the amount of cedar block resurfacing accomplished the previous year. To be exact, the total yardage resurfaced was 70,823 at a cost of \$33,164.66, or an average of 46.82 cents per yard, as against 41,055 yards at a cost of \$18,216.47, or an average of 43 cents per square yard.

The column designated as square yards indicates the amount of work done on the streets named. In addition a vast amount of work in the shape of patching was done, ranging from places not more than a yard or two to possibly half a block, on one hundred and thirty-eight streets.

In the resurfacing old cobble stone gutters were removed in many instances; on other streets on plank foundations the old planks were renewed, and the sand foundations seemed to require but little new material to make it firm enough for the new cedar blocks. In all the resurfacing, figuring 27 yards to the cord, 2,400 cords of cedar was used.

The Board refrained as far as possible from doing any resurfacing on streets cut from the repaving budget by the Estimators, preferring to leave them until another year with the hope of better luck. However, close watch was kept on such streets and all necessary patching to prevent accidents was done.

Following is a list of the streets resurfaced, the number of square yards, total cost and average cost per yard in each district :

CENTRAL DISTRICT.

LOCATION	Square Yards	Total Cost
Orchard street, First street to Fifth street.....	4,000	\$2,007 86
Rowena street, Brush street to John R. street.....	2,025	1,270 75
Columbia street, Hastings street to Antoine street.....	1,800	987 43
Pine street, Grand River avenue to Fifth street.....	840	395 27
Mechanic street, Beaubien street to Brush street.....	540	251 92
Cass street, Jefferson avenue to Woodbridge street.....	577	704 67
Beacon street, Brush street to Antoine street.....	1,425	556 76
Beech street, First street to Fifth street.....	3,852	1,880 57
Eliot street, Brush street to John R. street.....	2,025	1,289 92
Napoleon street, Hastings street to Beaubien street.....	3,330	1,325 09
Erskine street, Brush street to John R. street.....	2,000	1,150 68
	22,414	\$11,801 52

Average cost per square yard, 52 $\frac{63}{100}$ cents.

Lineal feet of curb relaid: On Rowena street, 500 feet; Columbia street, 60 feet; Cass street, 286 feet; Eliot street, 1400 feet; Erskine street, 1300 feet.

In addition to the new blocks used, as shown in table, 40 yards of old blocks were used on Beacon street and 214 yards on Beech street.

EASTERN DISTRICT.

Mt. Elliott avenue, Jefferson avenue to Champlain street.....	2,740	\$1,137 39
Columbia street, Hastings street to Rivard street.....	2,035	980 35
Larned street, Dequindre street to St. Aubin avenue.....	3,903	1,897 83
Chestnut street, Dubois street to Dequindre street.....	4,867	1,922 62
Napoleon street, Hastings street to Rivard street.....	2,187	816 44
Antietam street, Rivard street to Riopelle street.....	4,575	1,775 86
Adelaide street, Gratiot avenue to Dequindre street.....	1,740	830 22
Winder street, Riopelle street to Market street.....	2,610	1,168 61
Riopelle street, Canfield street to Scott street.....	6,951	3,343 50
	31,658	\$13,667 32

Average cost per square yard, 43 $\frac{1}{10}$ cents.

Lineal feet of curb relaid: On Antietam street, 62 feet; Adelaide street, 506 feet; Winder street 40 feet; Riopelle street, 490 feet.

WESTERN DISTRICT.

Seventh street, Porter street to Alley.....	3,144	\$1,420 43
Lafayette avenue, Fourteenth street to Lafferty street.....	2,806	1,208 94
Thirteenth street, Howard street to Porter street.....	2,342	1,102 12
Eighth street, Fort street to Porter street.....	4,305	2,123 58
Humboldt avenue, Butternut street to Ash street	1,566	664 41
Vinewood avenue, Ash street to Myrtle street.....	2,588	1,176 34
	16,751	\$7,695 82

Average cost per square yard, 45 $\frac{9}{100}$ cents.

Twenty-four yards of old blocks were laid on Eighth street

PUBLIC AND LATERAL SEWERS.

The Board's last report showed that every dollar allowed for public sewers was spent on the east side. The building up of that section of the city demanded that the big trunk sewers be built and the Estimators were liberal in their appropriation, allowing almost everything the Board asked. What was true of the fiscal year 1898-99 applied to 1899-1900, with the exception of \$825 expended for the Eleventh street outlet on the west side, all the work was done east of Woodward avenue, and with the completion of the work of the coming year that great territory will be pretty well cared for in the matter of drainage.

The sewers of the city as shown by the last report footed up 163.47 miles of public and 310.13 miles of laterals. To this can be added the work of the fiscal year—48.80 lineal feet of publics and 8.82 miles of laterals. The big Dubois street sewer and outlet was not completed at the close of the fiscal year, which accounts for the small showing in the total length of publics built.

The total amount of money used from the Public Sewer Fund was \$113,521.63, or \$36,601.17 less than the preceding year. The publics proper used up \$39,086.33, which was a saving of \$16,345.58 over last year. The tables show for general sewer work an expenditure of \$48,812.45, as against \$69,825.52 for 1898-99; cement and inspection, \$16,130.60, as against \$19,207.45, while sewer arms, refunds and extras run higher, showing \$9,942.25, as against \$5,652.92.

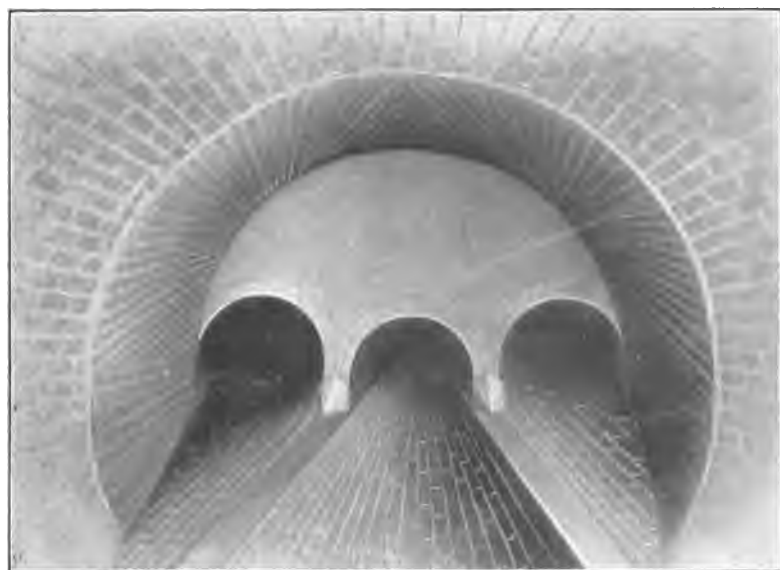
Following are the expenditures in detail:

GENERAL SEWER WORK, ETC.

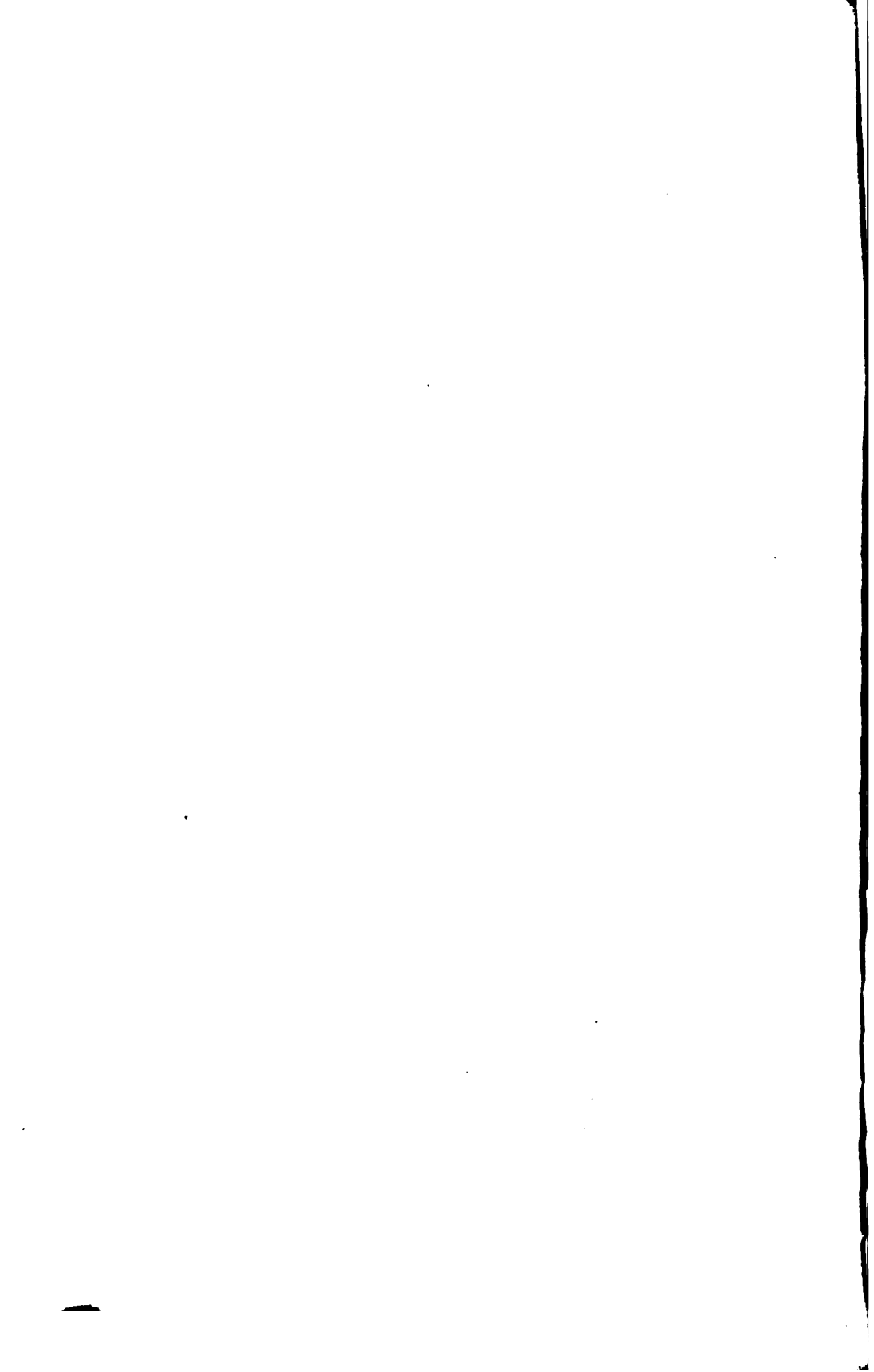
Labor, building receiving basins.....	\$20,588 51
Labor, cleaning and repairing basins.....	3,949 45
Labor, cleaning and repairing sewers.....	5,463 68
Labor, making sewer connections.....	3,488 23
Sewer pipe.....	2,572 81
Sewer grates, manhole covers, etc.....	4,668 22
Receiving basin stone.....	5,297 23
Use of team, City Engineer.....	515 75
Tools and repairs to tools.....	467 20
Printing and advertising.....	350 43



PUBLIC SEWER IN DUBOIS STREET LARNED STREET TO THE RIVER.



PUBLIC SEWER IN DUBOIS STREET, SHOWING BELL MOUTH.



BOARD OF PUBLIC WORKS

29

Stationery, maps, etc.....	249 83
Hardware, etc.....	46 55
Oil, wicks, etc.....	41 39
Lumber.....	4 79
Brick.....	216 00
Car fare, etc.....	669 95
Stakes for engineers.....	32 56
Sand and gravel.....	194 87
	<hr/> \$ 48,812 45

SEWER ARMS, REFUNDS AND EXTRAS.

Sewer arm assessments.....	\$ 8,898 79
Sewer assessments refunded.....	160 05
Extras on sewer contracts.....	433 41
	<hr/> \$ 9,492 25

CEMENT, INSPECTION, ETC.

Cement for public and lateral sewers.....	\$ 5,118 28
Inspection of cement and labor handling.....	1,162 22
Inspection of public and lateral sewer construction.....	8,992 00
Miscellaneous expenditures.....	858 10
	<hr/> \$ 16,130 60

PUBLIC SEWER CONTRACTS.

Section 4, Cadillac avenue sewer.....	\$ 1,977 40
Section 5, Field avenue sewer.....	3,084 13
Section 6, Van Dyke avenue sewer.....	3,054 40
Jos. Campau avenue outlet and dock.....	1,375 00
Dubois street outlet and sewer	23,000 00
Eleventh street outlet.....	825 00
McClellan avenue sewer.....	400 40
Section 3, Gratiot avenue, first to final estimate.....	816 00
Section 1, Gratiot avenue, first estimate.....	2,866 00
Section 4, Gratiot avenue, first estimate.....	1,358 00
Section 3, Mack avenue, first to final estimate.....	330 00
	<hr/> \$ 39,086 33
Total.....	<hr/> \$118,521 63

Following are complete tables of lateral and public sewers, showing location, contractor, length and cost :

LATERAL SEWERS CONSTRUCTED

No.	ALLEYS—BETWEEN WHAT STREETS LOCATED	CONTRACTOR
1083	In alley west of St. Antoine street, between Madison avenue and Beacon street.....	Wm. Porath.....
1084	In Wabash avenue, from 100 feet north of Michigan avenue to Locust street.....	Wm. Porath.....
1085	In rear of lots 1 and 2, east side of Livernois avenue, north of Horatio avenue.....	Thos. G. Whittaker
1086	In alleys west of Brush street, between Brady street and Alexandrine avenue.....	Wm. Porath
1087	In alleys east of Brush street, between Brady street and Alexandrine avenue.....	John Wagner.....
1088	In alleys between McClellan and Pennsylvania avenues, Lessing street and Mack avenue.....	Thos. G. Whittaker
1089	In alley east of Twenty-first street, between River and Fort streets, from 115 feet east of Twenty-first street to 205 feet east of same.....	Wm. Porath.....
1090	In right of way and alley between Woodward, Oakland, Leicester and Mott avenues.....	A. C. Lloyd.....
1091	In alleys between Belvidere, McClellan, Medbury and Gratiot avenues.....	Thos. G. Whittaker
1092	In alleys between Holcomb, Belvidere, Medbury and Gratiot avenues.....	Wm. Porath.....
1093	In alley east of Maybury avenue and south of Magnolia street.....	Wm. Porath.....
1094	In alleys between Twenty-eighth street and Lovett avenue, Herbert and Warren avenues.....	Wm. Porath.....
1095	In alley between Rivard and Russell streets, south of Garfield avenue.....	John Jeynes.....
1096	In alley between Fifth and Fourth streets, Larned and Congress streets.....	Julius Porath.....
1097	In alley south of Hancock avenue, between Maybury avenue and the west line of Loranger farm.....	John Jeynes.....
1098	In alley between Mitchell avenue and the Boulevard, south of the Boulevard.....	Thos. G. Whittaker
1099	In alley between Canton, Helen, Kirby and Ferry avenues...	John A. Mercier
1100	In alley between Ellery street, Mt. Elliott avenue, Kanter and Trombly avenues	Thos. G. Whittaker.....
1101	In alley west of Twelfth street, and north of Warren avenue	Wm. Porath.....
1102	In alleys between Artillery and Dragoon avenues, Hussar avenue and Fort street.....	Wm. Porath.....
1103	In alleys between Oakland and Cameron avenues, Philadelphia and Haigh avenue (extended).....	Thos. G. Whittaker
1104	In alley between Thirty-first and Goldner avenue, and north of Wabash R. R.....	John A. Mercier
1105	In alley between Thirty-first street, Goldner avenue and south of Michigan avenue.....	John A. Mercier

DURING FISCAL YEAR 1899-1900

Length Lineal Feet	Contract Price	Cement	Inspection	Manhole Covers	Costs	Total Cost
165	\$179 00	\$2 75	\$ 14 00	\$ 4 65	\$1 50	\$ 201 00
286	300 00	3 85	22 75	4 65	1 20	332 45
94	86 00	28	3 50	.....	60	90 38
1,118	996 00	7 70	56 00	13 95	5 40	1,079 05
1,114	1,080 00	11 00	66 50	13 95	5 10	1,176 55
972	1,222 00	15 40	85 75	18 60	12 60	1,354 35
90	97 00	2 75	14 00	4 65	1 50	119 90
2,540	4,083 90	23 10	245 00	23 25	25 20	4,400 45
978	1,194 00	8 80	75 25	9 30	16 20	1,303 55
812	857 00	11 55	52 50	13 95	12 00	947 00
195	179 00	3 30	15 75	4 65	2 10	204 80
1,194	1,311 00	12 10	52 50	13 95	15 30	1,404 85
206	233 00	3 85	14 00	4 65	2 40	262 90
412	549 00	8 25	31 50	9 30	6 30	604 35
1,202	1,499 00	11 55	73 50	13 95	7 80	1,605 80
260	298 00	3 85	35 00	4 65	2 70	344 20
393	350 00	3 85	28 00	4 65	7 50	394 00
558	552 00	6 05	43 75	9 30	10 50	621 60
25	28 00	28	3 50	.....	90	32 68
1,042	647 00	8 80	24 50	18 60	9 00	707 90
781	1,120 00	9 90	87 50	9 30	6 60	1,233 30
1,243	810 00	8 80	31 50	13 95	12 00	876 25
812	823 00	5 50	43 75	4 65	10 80	887 70

LATERAL SEWERS CONSTRUCTED

No.	ALLEYS BETWEEN WHAT STREETS LOCATED	CONTRACTOR
1106	In north side of the Boulevard, from Russell to proposed Orleans street	John A. Mercier
1109	In alley between VanDyke and Parker avenues, Coe avenue and St. Paul avenue (extended).....	Wm. Porath.....
1110	In alleys between Hibbard, Holcomb, Brinket and Lorman avenues.....	Wm. Porath.....
1111	In alley between Hamilton Boulevard, Third avenue, Bethune and Pallister Aves.	Wm. Porath.....
1112	In alley west of Junction avenue, between Julia and Ingersoll streets.....	Wm. Porath.....
1113	In Bellevue avenue, between Mack avenue and Berlin street.....	Julius Porath.....
1114	In alley between Hamilton Boulevard, lot 4 of Weber's subd. Pallister and Delaware avenues.....	Wm. Porath.....
1115	In alley west of Crystal street, between Trombley and Milwaukee avenues.....	August Koss.....
1116	In alley north of the Boulevard, between Dexter Boulevard and Wildemer avenue.....	Wm. Porath.....
1117	In alleys between Military and Cavalry avenues, Fort street and Lafayette avenue.....	John A. Mercier
1119	In alley between Sheridan, Townsend, Ferry and Palmer avenues.....	James Grant
1120	In alley between St. Aubin avenue, Dubois street, Palmer and Hendrie avenues.....	Wm. Porath.....
1121	In alley east of Cameron avenue, between Philadelphia avenue and Alger street.....	Geo. E. Currie.....
1122	In Field avenue, between Frederick and Ferry avenues, extended.....	Thos. G. Whittaker.....
1123	In alleys between Stanton avenue, Sixteenth street, Milwaukee avenue and the Boulevard.....	Wm. Porath.....
1124	In alley between Merrill street, Hamilton Boulevard, Pallister and Parkman avenues.....	Thos. G. Whittaker
1125	In alley west of Chene street, between Adele and Trombly avenues.....	Thos. G. Whittaker
1126	In River street, between Columbus avenue and Twenty-fourth street.....	James Grant
1127	In alleys between Cavalry and Campbell avenues, River street and Reeder avenue.....	Wm. Porath.....
1128	In alleys between Baldwin and Van Dyke avenues, Ferry avenue and Granger street.....	Wm. Porath.....
1129	In alleys between St. Aubin avenue and Dubois street, Hendrie and Medbury avenues	Wm. Porath.....
1130	In Commonwealth avenue, between Putnam and Merrick avenues	James Grant
1132	In alleys between McClellan and Pennsylvania avenues, Schiller and Lessing street.....	Geo. E. Currie
1133	In alleys between Welch and Hammond avenues, Horatio avenue and G. A. R. street.....	Geo. E. Currie.....

DURING FISCAL YEAR 1899-1900—(Continued)

Length Lineal Feet	Contract Price	Cement	Inspection	Manhole Covers	Costs	Total Cost
910	710 00	\$ 6 60	\$ 43 75	9 30	\$ 90	\$ 770 55
318	257 00	3 85	21 00	4 65	5 10	291 60
541	522 00	6 05	40 25	9 30	7 50	585 10
872	917 00	8 80	52 50	9 30	9 90	997 50
449	306 00	8 80	31 50	9 30	3 60	359 20
1,192	1,070 00	9 90	77 00	13 95	8 70	1,179 55
1,025	1,094 00	8 25	35 00	9 30	12 00	1,158 55
759	750 00	8 25	66 50	9 30	5 10	839 15
1,317	1,279 00	10 45	87 50	13 95	5 10	1,396 00
780	488 00	5 50	42 00	9 30	9 60	554 40
548	703 00	6 60	52 50	9 30	7 50	778 90
1,012	962 00	13 75	56 00	18 60	11 10	1,061 45
145	1,438 00	13 20	138 25	13 95	8 40	1,611 80
695	905 00	8 80	78 75	9 30	3 00	1,004 85
771	713 00	13 75	36 75	18 60	6 90	789 00
680	618 00	7 15	56 00	9 30	9 00	699 45
372	334 00	3 85	29 75	4 65	3 90	376 15
578	530 00	6 60	42 00	9 30	2 70	590 60
676	525 00	7 15	29 75	9 30	9 00	580 20
1,369	1,509 00	23 65	78 75	26 10	17 17	1,654 67
954	939 00	14 30	45 50	18 60	11 10	1,028 50
544	550 00	7 15	35 00	9 30	2 70	604 15
887	818 00	7 70	84 00	9 30	11 70	930 70
633	600 00	10 45	45 50	13 95	6 90	676 80

LATERAL SEWERS CONSTRUCTED

No.	ALLEYS—BETWEEN WHAT STREETS LOCATED	CONTRACTOR
1134	In alleys north of Gratiot avenue and west of McClellan avenue to north line lot 48.....	Geo. E. Currie.....
1135	In alleys north of Gratiot avenue and west of McClellan avenue to alley east of May avenue.....	Geo. E. Currie.....
1137	In alley between St. Aubin avenue and Dubois street, north of Ferry avenue.....	Geo. E. Currie.....
1138	In south side of Bethune avenue, from St. Antoine street to Oakland avenue.....	Geo. E. Currie.....
1139	In second alley west of Jos. Campau avenue between Pollard and Finley streets.....	Wm. H. Whittaker.....
1141	In alleys between Greenwood, Fourth, Hudson and Stanley avenues.....	Wm. H. Whittaker.....
1142	In alley between Williams and Maybury Grand avenues, Buchanan street and the railroad.....	Wm. H. Whittaker.....
1143	In alley between Thirty-first, Thirtieth, Horatio and Herbert streets.....	Wm. H. Whittaker.....
1144	In alley between Cadillac and Hurlbut avenues from lot 164 to lot 156 north of Kercheval avenue.....	John Jaynes.....
1145	In alley west of Pennsylvania avenue, between Vincennes and Navarre streets.....	Wm. H. Whittaker.....
1146	In alley between Pennsylvania and Cadillac avenues, from present terminus at south line of Charlevoix (extended) to north line of lot 133.....	Wm. H. Whittaker.....
1147	In alley between Brush and Beaubien streets, Hendrie and Medbury avenues.....	John Jaynes.....
1148	In alleys between McDougall avenue and east line of Chapoton farm, Warren avenue and Theodore street.....	Wm. H. Whittaker.....
1149	In alleys between Junction avenue and Thirty-first street, Otis and Ingersoll streets.....	Wm. Porath.....
1150	In alleys between Concord, Canton, Ferry and Palmer avenues.....	Wm. H. Whittaker.....
1151	In alleys between Concord, Canton and Palmer avenues and the Boulevard.....	Wm. H. Whittaker.....
1153	In alley between Parker and Maxwell avenues, Worcester place and Goethe avenue.....	August Koss.....
1154	In alleys between Van Dyke and Maxwell avenues, Norvell street and Burnett avenue.....	Wm. Porath.....
1155	In alley between Oakland and Goodwin avenues, south of Westminster avenue.....	John A. Mercier.....
1157	In alley between Thirty-third, Thirty-second, Rich and Horatio streets.....	John A. Mercier.....
1160	In alley between Concord, Canton, Kirby and Ferry avenues.....	Wm. H. Whittaker.....
1163	In alleys between Russell and Riopelle streets, Superior street and Willis avenue.....	Wm. Porath.....
1164	In alley south of Sylvester street, between Parker avenue and alley east.....	Wm. Porath.....

DURING FISCAL YEAR 1899-1900—(Continued)

Length Lineal Feet	Contract Price	Cement	Inspection	Manhole Covers	Costs	Total Cost
264	\$ 560 00	\$ 8 80	\$ 36 75	\$ 4 65	\$ 4 20	\$ 614 40
640	1,175 00	15 40	115 50	9 30	8 70	1,323 90
142	125 00	3 30	19 25	4 65	1 20	153 40
420	342 00	3 85	33 25	4 65	4 20	387 95
98	85 00	55	12 25	.....	90	98 70
743	644 00	5 50	50 75	4 65	10 80	715 70
134	137 00	3 30	19 25	4 65	90	185 10
673	533 00	4 40	50 75	4 65	12 30	605 10
350	504 00	4 95	56 00	4 65	4 20	573 80
220	151 00	55	14 00	.....	1 50	167 05
140	107 00	55	17 50	.....	1 20	126 25
343	307 00	3 85	31 50	4 65	6 90	\$ 353 90
802	761 00	11 00	52 50	13 95	12 30	850 75
859	598 00	11 00	52 50	18 60	11 10	691 20
550	557 00	7 15	38 50	9 30	7 50	619 45
483	450 00	4 95	36 75	9 30	4 80	505 80
886	877 00	9 90	49 00	13 95	11 70	961 55
858	986 00	12 10	80 50	13 95	11 40	1,103 95
222	175 00	2 20	15 75	4 65	4 50	202 10
911	702 00	7 15	40 25	9 30	12 30	771 00
393	358 00	3 30	29 75	4 65	7 50	403 20
444	429 00	6 05	29 75	9 30	3 60	477 70
170	118 00	55	14 00	.....	2 40	134 95
45,259	\$47,716 90	\$524 16	\$3,321 50	\$649 20	\$499 87	\$52,711 63

PUBLIC SEWERS BUILT DURING

LOCATION	Contractor	Length Lineal Ft.	Cost Per Foot.	Contract Cost.
Cadillac avenue, Sec. 4, from N. line of Kercheval to 360 ft. N. of same.....	John A. Mercier.....	360	\$ 5 40	\$ 1,972 00
Field avenue, Sec. 5, from center of Farnsworth to 450 ft. N. of same.....	John A. Mercier.....	450	6 98	3,146 50
*Dubois street and outlet from Dock line to N. line of Larned.....	John Wagner.....			
Joseph Campau avenue outlet and dock.....	Michigan Dock Building Co., Ltd.....	41½	.....	1,375 00
VanDyke avenue, Sec. 6, from alley N. of Gratiot to 750 ft. N. of same.....	John A. Mercier.....	750	3 95	3,046 50
McClellan avenue, from N. line of Gratiot to N. line of alley N. of same	Fred R. Gartner.....	115	4 55	523 25
Gratiot avenue, Sec. 1, from VanDyke to Chippewa.....	Julius Porath.....	1,504	.....	3,066 00
Gratiot avenue, Sec. 3, from Crane to Rohns.....	Julius Porath.....	571	.....	816 00
Gratiot avenue, Sec. 4, from McClellan to 487 ft. E. of May.....	Julius Porath.....	816	.....	1,558 00
Eleventh street sewer and outlet.....	George S. Langley.....			
	George Jeynes.....			
Section 3, Mack avenue, between Belvidere and McClellan.....	John Jeynes.....	314	.....	330 00
	Total Lineal Feet.....	4,880		\$14,458 25

*Dubois street sewer and outlet not completed at end of fiscal year. Paid on estimates \$23,000 00.

FISCAL YEAR 1899-1900.

Manholes			Manhole Covers	Cement.		Inspection	Total Cost
No.	Cost Each.	Lot Cost		No. of Bbls.	Cost		
1	\$28 00	\$28 00	\$ 4 65	180	\$ 99 00	\$182 00	\$ 2,285 65
1	28 00	28 00	4 65	245	134 75	241 50	3,555 40
							1,375 00
3	28 00	84 00	13 95	385	211 75	245 00	3,601 20
			.....	106	58 30	189 00	770 55
			.....	25	13 75	115 50	3,195 25
			.....	9	4 95	59 50	880 45
			.....	36	19 80	171 50	1,749 30
			.....	.....	.....	.....	825 00
			4 65	6	3 30	35 00	372 95
		\$140 00	\$27 90		\$545 60	\$1,239 00	\$13,610 75

GENERAL ROAD FUND.

Next in importance to the repaving fund, so far as the amount of money expended is concerned, comes the general road fund, which is called upon to stand sponsor for possibly a hundred different items. This fund might properly be called the Board's standby, for the amount of resurfacing and repairing of pavements, building of crosswalks and intersections, and in fact all kinds of patching and restoring, is determined by the amount of money allowed by the Estimators. The more liberal the allowance the more work will be accomplished.

The amount expended for labor in repaving pavements on city and other accounts was the largest item—\$45,944.40, which was \$5,413.59 over the preceding fiscal year. Property owners appreciate the work done in repairing pavements which has not reached the point of being worthy of a place in the repaving list, and the demand upon the Commissioners for repaving through Common Council resolutions far exceeded the amount within the province of the Board to dispense. The phrase "city and other accounts" in the largest item of the fund, means the work done by the Board in replacing pavements disturbed by the various boards and commissions of the city, as well as private individuals in connecting their residences and business places with water and gas. The money received for such work is placed to the credit of the general road fund and accounts for the figures which show an expenditure of a larger amount of money from the fund proper than that allowed by the Estimators.

All of the materials entering into the work of repairing of pavements such as cedar, sand, gravel and cement, show a larger amount expended than last fiscal year, owing to the fact that more work was accomplished and the advance in the price of almost everything entering into the work. Cedar for paving blocks jumped in price from \$5.90 to \$8.43 per cord and consequently \$40,726.69 was expended for that commodity as against \$18,041.89 the previous year. Lumber used for sidewalks, crosswalks, intersections and culvert boxes, also advanced in price and \$36,826.09 was expended as against \$25,538.68 the preceding year.



IROQUOIS AVENUE, NORTH OF KERCHEVAL, BEFORE GRADING.



IROQUOIS AVENUE, NORTH OF KERCHEVAL, AFTER GRADING.



In the building of new wood sidewalks and repaving the old walks \$13,495.77 was expended, together with \$104.81 for stone sidewalks—a total of \$13,600.58, as against a total of \$9,628.98 last year. The money used for repaving and building of sidewalks comes back to the Board from property owners and is credited to the fund.

The big item that gave everybody a chill when the bills came in was \$34,966.67 for asphalt repairs on streets under maintenance. The contract has two years yet to run and when the time is up the public will breathe easier. It seemed so much like paying out something for nothing that the talk for two years past relative to the city purchasing an asphalt plant and doing its own repairing culminated in the Board placing in its budget to the Estimators last spring an item of \$10,000 for that purpose. After considerable discussion the amount was finally allowed and as the fiscal year closes, arrangements are in progress for the purchase of a plant. The result of the experiment will be watched with much interest. In addition to the amount paid for maintenance of asphalt pavements under contract the sum of \$4,258.14 was expended for patching streets on which the contracts had expired, Woodward avenue and the thoroughfares around the heart of the city receiving special attention.

At the beginning of the fiscal year there was a balance in the general road fund of \$1,882.81. This of course, was added to the amount allowed by the Estimators. The large amount of work done during the summer and fall reduced the fund to figures which seemed as though it would be impossible to pull through to the end of the fiscal year, but careful handling of the money on hand and the absence of any resurfacing during the spring months wound up the year with a small credit to the fund.

Following are the details of expenditures:

Labor, repairing pavements on city and other accounts	\$ 45,944 40
Labor, building new wood crosswalks.....	2,529 47
Labor, repairing old wood crosswalks.....	2,404 08
Labor, repairing and building stone crosswalks.....	1,462 95
Labor, building new wood intersections.....	1,934 89
Stone intersections.....	5,233 43
Stone sidewalks.....	104 81
Labor, repairing old wood intersection walks.....	2,633 67
Labor, building new wood sidewalks.....	5,509 18

Labor, repairing old wood sidewalks.....	7,986 59
Asphalt pavement repairs, contract work.....	34,966 67
Asphalt pavement, repairs, Woodward avenue.....	4,258 14
Paving street and alley intersections.....	18,455 89
Labor, etc., repairing bridges.....	492 85
Paving and other assessments refunded.....	203 33
Cedar.....	40,726 69
Pay rolls, labor, etc., at Eastern cedar yard....	1,538 59
Pay rolls, labor, etc., at Western cedar yard.....	1,539 78
Coal for steam road rollers.....	262 23
Repairs to steam road rollers.....	740 33
Pay rolls, engineers, etc., steam road rollers.....	2,077 63
Labor, building and repairing culverts.....	203 93
Pay roll, inspectors, Water Board, Gas Co., etc.....	11,921 42
Dock repairs.....	128 25
Crushed stone.....	84 30
Pay rolls, labor at Eastern yard.....	5,026 20
Pay rolls, labor at Western yard.....	4,103 27
Extras on paving contracts.....	114 47
Pay rolls, inspectors of paving.....	6,894 75
Repairing fountains.....	236 47
Horse drinking fountains.....	74 43
Care of Bagley fountain.....	148 61
Pay rolls, superintendents Eastern, Western and Central districts.....	4,152 00
Salary of description clerk.....	430 90
Lumber.....	36,826 09
Pay rolls, labor hauling and piling lumber.....	18 00
Hardware, nails, etc.....	3,043 56
Paints, oils, waste, etc.....	219 61
Rent of storage yards.....	354 00
Stationery, printing and advertising.....	2,867 72
Material used in Boston Boulevard.....	257 00
Paving cement.....	3,619 46
Pay rolls, labor setting stakes.....	903 00
Stakes for engineers.....	132 45
Team for engineers.....	533 50
Sand and gravel.....	5,593 38
Pay rolls, sidewalk inspectors.....	9,350 70
Street signs and labor putting up same.....	2,169 66
Sprinkling streets.....	834 93
Tools and repairs to tools.....	1,122 74
Postage, car fare, telegrams, etc.....	500 97
Paving brick.....	625 90
Labor, cleaning snow from streets and sidewalks around parks.....	1,153 92
Labor, cleaning sidewalks around city hall.....	695 60

BOARD OF PUBLIC WORKS.

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Hauling gravel and old curb from streets.....	7 63
Hauling old material to storage yards and care of same.....	1,089 42
Plumbing in yards.....	188 30
Horse, wagon, harness, etc., quick repair sidewalk department; care of horse quick repair sidewalk department.....	857 80
Miscellaneous expenditures.....	483 79
Total.....	<u>\$287,863 73</u>

G. A. R. BUILDING FUND.

On the site of the old Cass Market, on the piece of ground at the intersection of Cass, Grand River and Adams avenues, stands a four-story stone structure—the Grand Army Memorial Hall—built under the supervision of the Board of Public Works. Although commenced in May, 1899, and supposed to have been completed December 15th of the same year, delays in the matter of material and inaccuracies in the original plans and specifications prevented the building being finished in time, but as the fiscal year closes there is practically little to be done except some inside work to make it habitable for the old soldiers and merchants who will occupy the ground floor.

In addition to the original amount realized from the sale of bonds—\$38,000, as well as \$3,000 from the G. A. R. posts, represented by receipts from the contractors for \$2,125 and the architect of \$875, a total of \$41,000, there was allowed \$1,000 from the House of Correction Fund for inspection and \$675 from the Contingent Fund for electric light wiring. The question of enclosures, bells and lights for the elevators, as well as gas and electric fixtures for the entire building, are before the Common Council in the shape of communications for the Board asking that money be allowed for those necessities which were not provided for by the architect. Expenditures from the fund at the close of the preceding fiscal year were \$2,763.91. The amount expended for the year just closed is as follows :

Pay roll Inspectors, construction, etc.....	\$ 1,017 50
Estimates paid on New Building.....	27,318 67
Miscellaneous expenditures.....	468 67
Total.....	<u>\$28,804 84</u>

SIDEWALK DEPARTMENT.

The Sidewalk Department still continues to exist and play an important part in the Board's machinery notwithstanding the annual attempt made by some members of the Board of Estimates to abolish the little coterie of inspectors who look after the hundreds of miles of plank and stone sidewalks. Eight men were employed to do the outside work, and these men handled the office work, and their duties kept them hustling during the spring, summer and fall months as lively as any bunch of city employes.

The police department and corporation counsel's office continued to assist the Board in the matter of reporting defective walks. The three departments also worked together in securing evidence for prosecuting on behalf of the city the cases for damage suits brought by citizens claiming to have been injured by falling on defective sidewalks. The combined efforts of all resulted in reducing the amount allowed for claims far below that of any previous twelve months for many years past.

The Quick Repair Wagon placed in commission the spring of 1899 filled the bill so well and gave such general satisfaction to the Board and the public that another outfit was purchased last spring and the work of the city divided between the two wagons. They were kept busy answering the scores of calls that came to the office every hour, which heretofore would not be taken care of inside of three or four days. The Quick Repair wagons did good work and paid for themselves several times over by preventing damage suits, which usually occur in spots where single planks are loose or gone entirely—the kind of repairs that the wagons are called upon to make.

Until the city undertakes the care of the sidewalks in the same manner as repairing and repaving of streets is now carried on by the Board (under the charter) the present arrangement is as good as it is possible for it to be with the number of men allowed by the Board of Estimates to do the work.

The number of notices of all kinds served by the sidewalk inspectors for the fiscal year, together with miles of new plank and stone walk constructed and cost of same, as well as a comparison of total amount of walk laid during the past ten years, were as follows:



THE QUICK REPAIR WAGONS, SIDEWALK WORK—VIEW ON WASHINGTON AVENUE, NEAR PARK STREET.



Notices served for repairs	6,444
Notices served for new walks	5,827
Notices served for paving	2,057
Notices served for lateral sewers.....	1,395
Miscellaneous notices served	5,938
Total notices served.....	21,661

PLANK.

Lineal feet new walk constructed	2,264.33
Assessed value of the same.....	\$ 644 33
Assessed value of repairs.....	\$ 1,033 55
Number of rolls constructing	47
Number of rolls repairing	179

STONE.

Lineal feet new walk constructed	125
Assessed value of the same.....	\$ 82 50
Assessed value of repairs.....	\$ 140 94
Number of rolls constructing.....	3
Number of rolls repairing.....	2

NEW PLANK AND STONE WALK.

Total number of lineal feet of new plank walk built.....	213,434
Total number of lineal feet of new stone walk built	73,900
Total number of walks repaired.....	5,292

MONEY COLLECTED BY DEPARTMENT.

Amount received for repairing sidewalks.....	\$ 8,145 64
Amount received for building new sidewalks	8,870 43
Total.....	\$ 17,016 07

A comparison, in round numbers, of the miles of sidewalk built during the past ten years shows :

	1890-1	1891-2	1892-3	1893-4	1894-5	1895-6	1896-7	1897-8	1898-9	1899-00
Miles of plank built..	32	55	63	39	33	30	54	44	45	40½
Miles of stone built..	3	7	9	8	7	5	4	7	11	14

BELLE ISLE BRIDGE FUND.

The Belle Isle Bridge Fund showed a balance to its credit at the beginning of the fiscal year of \$24,950.13, no money having been asked from the Board of Estimates. The Commissioners made an examination of the big bridge and decided that for the safety of the never-ending procession of pedestrians, bicycles and vehicles that come and go from early in the spring until late in the fall that a thorough overhauling was necessary. Accordingly the driveways were resurfaced, the two under decks being white pine and the top deck of white oak; the walks on either side of the driveways were completely overhauled and repaired. The amount expended for this work was \$12,043.27. The item of \$6,982.80 for salaries pertains to the regular bridge force of engineers, gate-keepers and sweepers. Last January the Board decided to uniform the bridge employes, and with navy-blue suits and caps they present a much better appearance than formerly. The amount shown outside of salaries and the expenditures for repairs—\$700.86—is the sum total of the expense of the miscellaneous items needed for the care of the bridge. Following are the expenditures in detail :

Pay rolls, bridge employes	\$ 6,982 80
General repairs, material and labor.....	2,771 06
Lumber	9,272 21
Oil, waste, etc.....	73 24
Coal	170 42
Hardware	172 00
Repairs to boilers.....	22 55
Tools, brooms, etc.....	194 47
Miscellaneous expenditures.....	68 18
Total.....	\$ 19,726 93

BOARD OF PUBLIC WORKS GENERAL FUND.

The salaries of the Commissioners, office force, engineer and assistants are paid from this fund. In addition to the salaried allowance, was made for stationery, printing and advertising, as well as car fare, telegrams, postage and supplies for Gas Inspector. The item of miscellaneous includes subscriptions to daily paper and municipal publications, Bradstreets, etc. Following are the expenditures in detail :

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Pay roll, Commissioners and office force.....	\$25,171 38
Pay roll, City Engineer, assistants and force.....	19,109 13
Stationery, printing and advertising.....	448 89
Supplies for Gas Inspector.....	26 61
Postage, car fare, telegrams, etc.....	329 81
Miscellaneous expenditures	212 14
Total.....	<u>\$45,297 46</u>

MARKET FUNDS.

No money was asked for the Western Market Fund from the estimates, as \$3,805.95 remained to the credit of the Fund at the beginning of the fiscal year. This amount will be very materially reduced during the coming year, as the structure is sadly in need of painting. The large item in the Eastern Market Fund of \$1,491.17 was for extras allowed contractor O'Connell in the completion of the new market built close to the site of the old one. The other items were for general repairs to the markets. Following is a detailed statement of expenditures :

EASTERN MARKET FUND.

General repairs	\$ 154 31
Hardware	97 17
Paints, oils, etc.....	3 68
Plumbing.....	6 00
H. P. O'Connell, extras on new Eastern Market Building.....	1,491 17
Total.....	<u>\$1,752 33</u>

WESTERN MARKET FUND.

General repairs	\$ 87 25
Plumbing.....	33 25
Hardware	28 70
Paints, etc.....	1 84
Miscellaneous.....	1 50
Total.....	<u>\$ 152 54</u>

PUBLIC BUILDING FUND

The maintenance and care of the City Hall, Municipal Court Building and Health Building, which constitutes a hundred different items, was cared for from the Public Building Fund. The Board maintained a force of carpenters and painters, with shops in the basement of the City Hall, and this plan was found very satisfactory, as all work was done under direct supervision of the commissioners. The total amount expended for the three buildings was \$10,383.87, about the same as the preceding year. Inasmuch as the new County Building is nearing completion, and the county offices now located in the City Hall will be moved there in due time. The Estimators allowed but \$7,900 for the new fiscal year, believing that just as little money as possible should be spent on the City Hall, which will be completely remodeled after the exit of the county offices. The Janitors in the basement and on third floor of City Hall, paid from this fund to the amount of \$1,079, were converted by the Board of Aldermen into June appointments at the close of the fiscal year and pass from the Board's control. One man, however, was allowed for care of walks around and entrances to the City Hall and care of Bagley fountain.

Following is a statement of the expenditures for the past twelve months :

Repairs to offices and furniture.....	\$ 698 16
Cleaning basement and walks around City Hall.....	168 23
Pay roll Janitors third floor and basement.....	1,079 00
Electrical apparatus and repairs.....	633 86
Printing and advertising.....	14 43
Engine and boiler repairs.....	300 50
Painting and kalsomining.....	19 20
Plumbing.....	1,028 30
Paints, glass, etc.....	261 55
Repairs to roof and general repairs to building.....	3,779 74
Toilet service.....	91 75
New furniture.....	106 00
Hardware.....	615 73
Lumber.....	652 22
Removing ashes from building.....	50 00
J. T. Wing & Co., boiler compound.....	52 52
Repairs to elevators.....	307 27

Cartage, car tickets, etc.....	72 50
W. H. Elliott, linoleum (B. P. W. office)	62 05
W. H. Elliott, carpets, etc., Mayor's office.....	129 78
Ernest Kern, linoleum, B. P. W. hall.....	36 45
D. S. Phelps, brooms.....	30 00
A. Laitner, brooms.....	7 00
Detroit Picture Co., mouldings and frames.....	14 60
J. T. Wing & Co., supplies, etc.	32 77
F. W. Burnett, moving storm doors City Hall to Western Yard,	9 00
Philip Christa & Sons, marble tile, City Hall floor.....	6 00
Miscellaneous items too late to classify.....	75 26
	<hr/> \$10,333 87

INSPECTION OF GAS AND GAS METERS

During the fiscal year a total of 4000 meters were inspected and proved by the gas and meter inspection department of the Board.

Of the 4000 meters mentioned above, 3226 were "new" and 746 "repaired" meters inspected for the Detroit City Gas Co., and the remaining 28 were inspected for consumers of gas, on complaint.

Of the 3226 new meters inspected, 12 were rejected—4 for registering too fast (average error 4.75%), 7 for registering too slow (average error 3.75%), and one for having leak in same.

Of the 746 repaired meters inspected, 27 were rejected—10 for registering too fast (average error 4.5%), 14 for registering too slow (average error 6.8%), 2 for having leaks in same and for failing to pass gas.

Of the 28 meters inspected for consumers of gas on complaint, 6 were found to register too fast (average error 5.4%), 8 too slow (average error 7.5%). The remainder—14—were found to register within the 2% limit.

All the above meters registering correctly were properly sealed.

The average illuminating power of the gas during the year was equal to 20.49 standard sperm candles. At no time during the year did the candle power of the gas fall below that required by the ordinance, the lowest found being 18.61 candles, or .61 of a candle above, and the highest found being 25.14 candles, or 7.14 candles above requirement.

SECRETARY'S RECEIPTS.

The following itemized statement shows the receipts by the Secretary for the fiscal year 1899-1900 :

Repairs to pavements, including permit account.....	\$ 35,655 28
Additional charges on permits.....	79 84
Repairs to sidewalks.....	8,145 64
Constructing new sidewalks.....	8,870 43
Building permits.....	332 30
House moving permits.....	377 08
Lateral sewer connections.....	1,804 44
Public sewer connections.....	957 87
Rolling streets and alleys.....	3,164 42
Inspection, alley No. 29 (L. L. Barbour).....	1 73
Inspection of gas meters.....	1,332 00
Cement sacks returned.....	733 35
Sale of old paving material.....	2,298 84
Sale of sawdust, etc., from yards.....	172 50
Sale of old lead, M. C. building.....	16 73
Sale of old cables, City Hall.....	2 10
Sale of horse (quick repair wagon).....	56 50
Sale of old plank, etc.....	123 00
Sale of old stone, McClellan street outlet.....	18 00
Sale of empty barrels.....	10 25
Repairing and cleaning sewers.....	54 91
Unloading gravel and sand.....	17 00
Wm. Snyder—old material.....	50
Repairing fence.....	2 29
Cement, inspection, etc., private lateral sewers.....	49 36
Repairing crosswalks.....	33 76
Cleaning snow from walks.....	6 00
Building sewers.....	104 66
Lowering curb.....	7 27
Repairing areas.....	89 15
Sale of old election booths.....	350 00
Sale of old wagon, W. Y.....	5 00
Repairs to hydrant and gate.....	22 79
H. Kallman—carpenter work.....	1 25
Jas. W. Millen—building manure box.....	4 43
Total.....	\$ 64,900 67

COMPARISON WITH FORMER YEARS.

Received by Secretary for 1888-89	\$ 4,220 22
Received by Secretary for 1889-90	5,106 24
Received by Secretary for 1890-91	5,360 30
Received by Secretary for 1891-92	26,878 32
Received by Secretary for 1892-93	44,668 69
Received by Secretary for 1893-94	60,890 83
Received by Secretary for 1894-95	111,344 71
Received by Secretary for 1895-96	82,253 40
Received by Secretary for 1896-97	102,721 49
Received by Secretary for 1897-98	53,007 88
Received by Secretary for 1898-99	56,974 60
Received by Secretary for 1899-1900	64,900 67

RECAPITULATION.

Total expenditures made under the Board during the fiscal year are here given :

General Road Fund.....	\$ 287,863 73
Public Sewer Fund	113,521 63
Board of Public Works General Fund	45,297 46
Public Building Fund.....	10,359 87
Repaving Fund.....	266,088 21
Belle Isle Bridge Fund.....	19,704 99
Eastern Market Fund.....	1,752 33
Western Market Fund.....	152 54
Road District Fund.....	159,209 81
G. A. R. Building Fund.....	28,804 84
Assessment District, New Paving.....	174,800 09
Assessment District, Alley Paving.....	9,933 94
Assessment District, Lateral Sewers	43,812 84
Total.....	\$ 1,161,302 28

ROAD DISTRICT FUND.

Funds for the Road District work were raised by the respective Wards; and for the fiscal year \$159,209.81 was expended in cleaning the streets and alleys of our city. Aside from the care of the 269 miles of paved streets, all the unpaved streets were cared for from these funds, as well as the semi-annual cleaning of alleys outside the heart of the city, which is no small job. The down-town alleys are watched just as closely as the streets themselves. The cost of cleaning alleys in the central district, the work of last spring, will give some idea of the task of that particular feature of the Board's work:

	LOADS REMOVED.	COST OF LABOR.
First Ward.....	1,274	\$1,812 91
Second Ward	976	1,614 71
Third Ward.....	992	1,207 26
Fourth Ward.....	1,416	1,778 58
Total	4,568	\$6,213 46

The following table of expenditures, compared with those of previous years, shows the miles of paved streets and amount of money expended each year:

FISCAL YEAR.	MILES PAVED STREETS.	EXPENDED FROM ROAD DISTRICT FUNDS.
1887-88	108	\$102,075 10
1888-89	121	108,187 22
1889-90	138	115,588 45
1890-91	140	133,777 95
1891-92	171	146,864 30
1892-93	192	157,016 67
1893-94	202	179,284 91
1894-95	215	151,111 75
1895-96	225	110,710 06
1896-97	235	106,716 60
1897-98	250	122,993 37
1898-99	260	147,381 41
1899-00	269	159,209 81

On the following pages are the tables showing the disbursements and balances of the Road District Funds:

ROAD DISTRICT FUNDS.

Condensed Statement Showing for What Expenditures Were Made.

WARDS.	Cleaning Paved Streets.	Cleaning Unpaved Streets.	Sweeping Streets.	Cleaning Alleys.	Tools and Repairs to Tools.	Sweeper Brooms.	Cutting Trees.	Miscel- laneous.	Total Expendi- tures.
First	\$16,931 60	\$434 42	\$1,387 32	\$2,816 92	\$503 21	\$397 12	\$101 50	\$197 99	\$23,270 08
Second	17,436 90	551 84	4,432 80	3,765 64	394 29.	285 45	150 75	32 96	24,100 63
Third.....	4,304 97	853 06	794 91	1,114 15	239 86	111 15	38 30	41 54	7,497 44
Fourth	9,732 73	145 27	990 52	2,263 21	209 98	24 00	57 25	1,241 41	14,069 37
Fifth	4,028 81	923 68	382 40	2,023 10	247 00	41 60	22 00	14 08	7,882 62
Sixth	4,018 05	572 68	467 94	2,249 35	253 74	130 40	40 50	41 12	7,773 78
Seventh	3,987 94	1,063 00	326 26	1,062 87	296 12	98 00	23 50	531 99	7,332 70
Eighth	3,859 27	819 07	497 86	1,236 31	207 29	97 70	27 50	12 01	6,757 01
Ninth.....	3,916 33	1,602 84	347 29	1,397 59	306 05	146 75	14 50	18 00	7,749 35
Tenth	3,499 43	962 55	543 04	1,629 01	308 23	43 45	76 50	26 95	7,079 16
Eleventh	2,461 94	2,346 81	272 30	1,243 34	327 15	19 30	7 00	18 75	6,701 59
Twelfth	3,445 71	1,198 77	384 33	387 54	235 35	79 13	16 00	40 00	6,236 33
Thirteenth	2,536 64	2,361 06	273 57	384 62	175 63	64 90	27 00	6 00	6,338 52
Fourteenth	2,537 11	2,720 01	253 38	379 62	205 62	105 15	7 50	43 50	6,251 89
Fifteenth	1,671 00	2,932 67	286 35	323 08	169 93	10 00	3 50	622 75	6,025 28
Sixteenth.....	1,555 15	3,215 91	224 59	319 11	166 20	37 00	.....	25 50	5,543 46
Seventeenth	1,282 05	5,956 82	240 12	470 99	135 12	57 00	.....	58 00	8,290 10
Totals	\$37,255 63	\$28,654 46	\$9,605 00	\$24,012 45	\$4,350 77	\$1,745 20	\$613 80	\$2,972 50	\$159,209 81

CONDENSED STATEMENT.

Showing Condition of Funds at Beginning and Close of Fiscal Year.

NO. OF ROAD DISTRICT.	Cash Credit Balance July 1, 1899.	Appropriation, 1899-1900.	Actual Receipts from Appropriation.	From Deficiency Fund.	Cash Receipts from other Sources.	Total Actual Receipts.	Disburse- ments for Fiscal Year.	Credit Balance July 1, 1900.
First.....	\$ 75 63	\$20,000 00	\$17,787 09	\$2,212 91	\$3,200 56	\$23,276 19	\$23,270 06	\$ 6 11
Second	111 30	20,000 00	17,787 09	2,212 91	5,008 94	25,120 04	25,105 43	14 61
Third.....	92 94	7,000 00	6,226 33	773 67	2,000 00	9,062 94	8,497 44	565 50
Fourth	25 17	12,000 00	10,671 49	1,328 51	4,008 01	16,028 18	15,869 37	158 81
Fifth	12 56	7,000 00	6,226 33	773 67	1,604 50	8,617 06	8,452 62	164 44
Sixth	60 96	7,000 00	6,226 33	773 67	2,000 00	9,080 96	8,673 78	387 18
Seventh	86 15	7,000 00	6,226 33	773 67	1,500 00	8,586 15	8,552 70	8 45
Eighth	108 45	6,000 00	5,385 71	664 29	1,000 00	7,108 45	6,757 01	351 44
Ninth.....	403 97	8,000 00	7,114 32	885 68	.....	8,408 97	8,249 35	154 62
Tenth	1,166 38	6,000 00	5,385 71	664 29	.....	7,167 13	7,079 16	87 97
Eleventh	15 19	6,000 00	5,385 71	664 29	1,000 93	7,016 12	6,701 59	314 53
Twelfth	146 23	6,500 00	5,780 88	719 62	.....	6,646 28	6,286 83	469 40
Thirteenth	407 33	6,000 00	5,385 71	664 29	.....	6,407 33	6,393 52	66 81
Fourteenth	1,677 84	6,000 00	5,385 71	664 29	.....	7,677 84	6,251 89	1,425 95
Fifteenth	863 77	6,000 00	5,385 71	664 29	500 00	6,893 77	6,525 28	368 49
Sixteenth	743 19	6,000 00	5,385 71	664 29	2 00	6,745 19	5,549 46	1,201 73
Seventeenth	537 17	8,000 00	7,114 32	885 68	2 51	8,544 18	8,200 10	344 08

TABLE OF CASH BALANCES.

Public Works Funds.

NAME OF FUND.	Credit Balance July 1, 1899.	Appropriation 1899-1900.	Actual Receipts from Appropria- tion.	From Deficiency Fund.	Cash Receipts from other Sources.	Total Actual Receipts.	Disburse- ments for Fiscal Year 1899-1900.	Credit Balance July 1, 1900.
General Road.....	\$ 1,882 81	\$221,582 94	\$197,128 21	\$24,454 73	\$70,703 91	\$292,635 98	\$287,863 73	\$ 4,772 25
Public Sewer.....	20,685 06	85,700 00	80,769 44	4,930 56	8,702 04	115,087 10	113,521 63	1,565 47
Board of Public Works General	2,797 93	42,020 00	39,599 09	2,420 91	1,334 00	46,151 93	45,297 46	854 47
Public Building.....	374 41	8,450 00	7,616 00	833 33	1,544 83	10,969 24	10,359 87	9 37
Repaving.....	25,011 34	308,328 00	288,639 64	17,683 36	.....	331,339 34	296,083 21	65,251 13
Belle Isle Bridge.....	24,950 13	.....	.....	.....	.....	24,950 13	19,704 99	5,245 14
Eastern Market.....	38 09	1,750 00	243 45	1,506 55	.....	1,788 09	1,752 33	35 76
Western Market	3,805 95	.....	.....	.....	.....	3,805 95	152 54	3,653 41

CITY OF CLEAN STREETS.

Detroit's Method and Cost of Conquering Dirt and Filth.

DETROIT has practically solved the problem of how to keep a city clean at a reasonable cost to the taxpayers. No city in the Union of like population and area of square miles has been able to keep pace with Detroit in the matter of cleanliness, even when the amount expended far exceeded that allowed the Board for street cleaning purposes in this city. The question of dollars and cents cuts a big figure in solving this interesting problem. But that is not all. Detroiters are proud of Detroit and aid in many ways the work of the Commissioners in making the streets and alleys of the city cleanly to look upon. Nature has been kind to Detroit in giving her a vast tract of land upon the most beautiful river in the world, situated so that broad avenues, lined with handsome shade trees, lend beauty to the accomplishments of the army of street cleaners in pursuing their labors of conquering dirt and filth on hundreds of streets and alleys. So much has been said and written about the beauty of Detroit that almost every man, woman and child considers himself or herself a committee of one to aid in keeping the city clean and maintaining the world-wide reputation so long enjoyed.

The street cleaning force is a vast army divided and sub-divided into companies and regiments under efficient captains and generals. The whole matter is one of honor to those having the work in charge, the Commissioners accepting no excuses for lack of attention to duty, but firmly insisting on results in the shape of thoroughness in the work of clean streets and alleys from one end of the city to the other. From early morning until the end of the regulation eight-hour work-day, and from evening through the long hours of the night it is simply a continuous sweeping, sprinkling, brushing and cleaning. It costs money, time and energy—but the city is clean.

The White Wings continue to play an important part in the work and the result of their labors has been so thoroughly appreciated by citizens generally that any attempt to do away with them would be



THE "WHITE WING" BRIGADE, SEVENTY-EIGHT STRONG—VIEW ON LEDYARD STREET, AT CASS PARK.